# **SYSMAC CJ-series Output Units**

# CJ1W-OC/OA/OD

CSM CJ1W-OUTPUT DS F 3 1

# 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.
- New high-speed Output models CJ1W-OD213 and CJ1W-OD234 now available. These units can help to increase system throughput.





CJ1W-OD213 NEW

CJ1W-OD234 NEW

### **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 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**

# **Output Units**

Unit type	Product			Specifications			No. of words	consu	rrent mption A)	Model	Standards	
,,	name		I/O points	Maximum switching capacity	Commons	External connection	allocated	5 V	24 V			
	Relay Contact Output Units	-	8 outputs	250 VAC/24 VDC, 2 A	Independen t contacts	Removable terminal block	1 words	0.09	0.048 max.	CJ1W-OC201		
		-	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	UC1, N, L, CE	
		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		
CJ1 Basic I/O Units	Transistor Output Units	Sinking	16 outputs (High speed)	24 VDC, 0.5 A	16 points, 1 common	Removable terminal block	1 words	0.15	-	NEW CJ1W-OD213	N, L, CE	
		Sinking	32 outputs	12 to 24 VDC, 0.5 A	16 points, 1 common	Fujitsu connector	2 words	0.14	_	CJ1W-OD231	UC1, N, L,	
		Sinking	32 outputs	12 to 24 VDC, 0.5 A	16 points, 1 common	MIL connector	2 words	0.14	-	CJ1W-OD233	CE	
		Sinking	32 outputs (High speed)	24 VDC, 0.5 A	16 points, 1 common	MIL connector	2 words	0.22	=	NEW CJ1W-OD234	N, L, CE	
		Sinking	64 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common	Fujitsu connector	4 words	0.17	-	CJ1W-OD261		
		Sinking	64 outputs	12 to 24 VDC, 0.3 A	16 points, 1 common	MIL connector	4 words	0.17	ı	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	UC1, N, L, CE	
		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 Connectors for 32-input, 32-output, 64-input, 64-output, 32-input/32-output, and 16-input/16-output Units

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

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

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

### **Applicable Connector-Terminal Block Conversion Units**

			N	T		Size		Mou	nting		Discolor												
Туре	Series	I/O	Number of poles	Terminal type	Depth (mm)	Height (mm)	Width (mm)	DIN Track	Screws	Common terminals	Bleeder resistance	Indicators	Model	Standards									
			20				79						XW2D-20G6										
		I/O							Yes	No	No		XW2D-40G6										
Slim	XW2D		40	M3	39	40	149	Yes				No	XW2D-40C6										
		Input	40				149				Built-in		XW2D-40G6-RF										
		only									Duilt-III		XW2D-40G6-RM										
				M3.5			112.5						XW2B-20G5										
Thurwall	XW2B	3 I/O	1/0	20	M3 (European type)		45.0	67.5	Yes	Yes	No	No	No	XW2B-20G4									
Through	XWZB			M3.5	45	45.3	202.5	162	res	NO	INO	INO	XW2B-40G5										
			40	40	40	40	40	40	40	40	40	40	40	M3 (European type)			135						XW2B-40G4
With		I/O	20	M3	39	40	149					No	XW2C-20G6-IO16										
common terminals	XW2C	Input only	20	M3.5	50	38	160	Yes	Yes	Yes	No	Yes	XW2C-20G5-IN16										
With common terminals, 3-tier	XW2E	Inputs only, 3 tiers	20	M3.5	50	53	149	Yes	Yes	Yes	No	No	XW2E-20G5-IN16										
Screwless	XW2F	Input only	20	Clamp	50	40	95.5	Yes	Yes	Yes	No	No	XW2F-20G7-IN16										
clamp terminals	AVVZF	Outputs only	20	Clamp	50	40	95.5	Yes	Yes	Yes	No	No	XW2F-20G7-OUT16										
e-CON	XW2N	Input only	20	e-CON connector	50	40	95.5	Yes	Yes	Yes	No	No	XW2N-20G8-IN16										

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

### Applicable I/O Relay Terminals

						Specific	ations				(horizon ounting)		Моц	ınting									
Туре	/pe Series		Classi	fication	Polarity	Number of points	Rated ON current at contacts	Operation indicators	Terminal block for power supply wiring	Horizontal (mm)	Vertical (mm)	Height (mm)	DIN Track	Screws	Model	Standrads							
		Vertical		Relay outputs		16	5A or 3A				46				G70D-VSOC16								
		type G70D-V		MOSFET relay outputs	NPN	(SPST- NO × 16)	0.3A	Yes	Expandable	135		81	Yes	Yes	G70D-VFOM16	U, C, CE							
						8 (SPST- NO × 8)	5A			68	93	44			G70D-SOC08	-							
Space- saving		Elot	Outputs	Relay outputs	NPN	16 (SPST- NO × 16)	3A								G70D-SOC16								
					type			PNP	16 (SPST- NO × 16)	ЗА	Yes	-	156	51	39	Yes	Yes	G70D-SOC16-1					
					MOSFET relay	NPN	16 (SPST-	0.3A								G70D-FOM16	_						
												outputs	PNP	NO × 16)	0.07.								G70D-FOM16-1
High- capacity, space- saving	G70R		Outputs	Relay outputs	NPN	8 (SPST- NO × 8)	10A	Yes	_	136	93	55	Yes	Yes	G70R-SOC08	_							
				AC inputs	16 - NPN (SPST-	16	Г- 1A			100					G7TC-IA16								
			Inputs	DC inputs	INPIN	NO × 16)	IA			182					G7TC-ID16								
Standard	G7TC	7TC	7TC	G7TC	GZTC	37TC	TC	TC				8 (SPST- NO × 8)	Yes	_	102	85 68	68	Yes	_	G7TC-OC08	U, C		
Cianaara	a, i c		Outputs	Relay outputs	NPN	16 (SPST- NO × 16)	5A	. 55		182			. 00		G7TC-OC16								
					PNP	16 (SPST- NO × 16)				102					G7TC-OC16-1	-							
High-			Outrote	Relay	NPN	16 (SPDT × 16	10 A (Terminal	No		004	75	64	Vaa		G70A-ZOC16-3 (Socket only) + Relay/SSR/ MOSFET Relay/ Timer	U, C,							
socket	capacity socket (Socket only		Outputs	outputs	PNP	possible with G2R Relays)	block allowable current)	INO	_	234	75	04	Yes	-	G70A-ZOC16-4 (Socket only) + Relay/SSR/ MOSFET Relay/ Timer	CE							

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

### International Standards

- The standards indicated in the "Standards" column are those current for UL, CSA, cULus, cUL, NK, and Lloyd standards and EC Directives as of the end of November 2008. 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.
- Ask your OMRON representative for the conditions under which the standards were met.

# **Mountable Racks**

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

# **Specifications**

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

Nama	8-point Contact Output Unit with Terminal Block (Independent Relays)						
Name 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, cos\( \phi = 0.4 \), 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	$20~\text{M}\Omega$ 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	Signal name OUT OUTC OUTC						
Terminal Connections	Signal Connector Signal name  OUTO AD BO OUTCO L  OUTO AD						

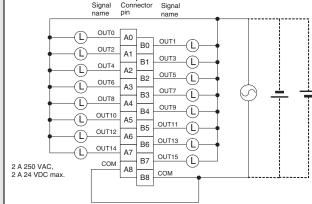
\*Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O. This Unit is also treated as a 16-point I/O Unit in the I/O tables.

# CJ1W-OC211 Contact Output Unit (16 Points)

Name	16-point Contact Output Unit with Terminal Block
Model	CJ1W-0C211
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 × No. of ON points)
Weight	170 g max.
Circuit Configuration	Signal name OUT0 to OUT15 COM COM
	Signal Connector Signal name pin name  U OUTO AO BO OUT1 L

### Terminal Connections



<sup>\*</sup>Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

# **CJ1W-OA201 Triac Output Unit (8 Points)**

	That Surpar Sime (6.1 Sime)						
Name	8-point Triac Output Unit with Terminal Block						
Model	CJ1W-OA201						
Max. Switching Capacity	.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 M $\Omega$ 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	Signal name  OUTO to OUT7  Fuse  OUTO TO OUT7						
Terminal Connections	** Connector Signal name  NC A0 B0 OUT0 L  NC A1 B1 OUT1 L  NC A2 B2 OUT3 L  NC A3 B3 OUT4 L  NC A5 B5 OUT6 L  NC A6 B6 OUT6 L  NC A7 B7 COM  B8 COM  NC A8 B8 COM  NC A8 B8 COM  NC A7 B7 COM  NC A8 B8 COM  NC A8 B8 COM  NC A7 B7 COM  NC A8 B8 COM  NC A8 B8 COM  NC A7 B7 COM  NC A8 B8 COM  NC A8 B8 COM  NC A7 B7 COM  NC A8 B8 COM  NC A7 B7 COM  NC C						

\*Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O. This Unit is also treated as a 16-point I/O Unit in the I/O tables.

### CJ1W-OD201 Transistor Output Unit (8 Points) Name 8-point Transistor Output Unit with Terminal Block (Sinking Outputs) Model CJ1W-OD201 12 to 24 VDC **Rated Voltage Operating Load** 10.2 to 26.4 VDC Voltage Range **Maximum Load** 2.0 A/point, 8.0 A/Unit Current **Maximum Inrush** 10 A/point, 10 ms max. Current 0.1 mA max. Leakage Current **Residual Voltage** 1.5 V max. **ON Response Time** 0.5 ms max. **OFF Response Time** 1.0 ms max. Insulation 20 M $\Omega$ between the external terminals and the GR terminal (100 VDC) Resistance 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 90 mA max. Consumption 6.3 A (1/common, 2 used) Fuse The fuse cannot be replaced by the user. **External Power** 12 to 24 VDC, 10 mA min. Supply Weight 110 g max. Signal +V OUT0 OUT3 Internal circuits **Circuit Configuration** COMO Output indicate OUT4 OUT7 COM1 \* Connector pin Signal Signal OUT0 A0 OUT1 В0 OUT2 Α1 OUT3 B1 NC Α2 12 to 24 VDC NC B2 COMO +V ВЗ Terminal NC Connections A4 NC B4 OUT4 Α5 OUT5 B5 OUT6 OUT7 B6 NC Α7 12 to 24 VDC NC В7 COM1 A8 B8

Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O. This Unit is also treated as a 16-point I/O Unit in the I/O tables.

<sup>•</sup> When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.

\*Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

### CJ1W-OD203 Transistor Output Unit (8 Points) Name 8-point Transistor Output Unit with Terminal Block (Sinking Outputs) Model CJ1W-OD203 12 to 24 VDC **Rated Voltage Operating Load** 10.2 to 26.4 VDC Voltage Range **Maximum Load** 0.5 A/point, 4.0 A/Unit Current **Maximum Inrush** 4.0 A/point, 10 ms max. Current 0.1 mA max. Leakage Current **Residual Voltage** 1.5 V max. **ON Response Time** 0.1 ms max. **OFF Response Time** 0.8 ms max. Insulation 20 M $\Omega$ between the external terminals and the GR terminal (100 VDC) Resistance 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 100 mA max. Consumption Fuse None **External Power** 10.2 to 26.4 VDC, 20 mA min. Supply Weight 110 g max. Signal Output indicator Internal circuits +V Circuit Configuration OUT0 to OUT7 . Сом \* Signal Connector Signal -(L) OUTO A0 B0 OUT1 (L) OUT2 A1 B1 OUT3 (L) OUT6 A2 B2 OUT5 (L) OUT6 A3 COUT7 (L) Terminal Connections A5 B5 NC A6 B6 NC NC A6 NC Α7 COM A8 B7 +V 12 to 24 VDC

\*Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O. This Unit is also treated as a 16-point I/O Unit in the I/O tables.

• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.

### CJ1W-OD211 Transistor Output Unit (16 Points) 16-point Transistor Output Unit with Terminal Block (Sinking Outputs) Name Model CJ1W-OD211 Rated Voltage 12 to 24 VDC **Operating Load** 10.2 to 26.4 VDC Voltage Range **Maximum Load** 0.5 A/point, 5.0 A/Unit Current Maximum Inrush 4.0 A/point, 10 ms max. Current 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 20 M $\Omega$ between the external terminals and the GR terminal (100 VDC) Resistance 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 5 VDC 100 mA max. Consumption Fuse **External Power** 10.2 to 26.4 VDC, 20 mA min. Supply Weight 110 g max. Signal Output indicator +V **Circuit Configuration** Internal OUT0 OUT15 СОМ OUT0 Α0 OUT1 L В0 Α1 OUT3 L В1 OUT4 A2 OUT5 (L) B2 OUT6 A3 OUT7 L ВЗ Terminal OUT8 A4 OUT9 L Connections B4 A5 OUT11 L B5 OUT12 A6 OUT13 L В6 OUT14 Α7 OUT15 (L) В7 A8 В8 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.

<sup>\*</sup> Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

### CJ1W-OD213 Transistor Output Unit (16 Points) 16-point Transistor Output Unit with Terminal Block (Sinking Outputs) Name Model CJ1W-OD213 Rated Voltage 24 VDC **Operating Load** 20.4 to 26.4 VDC Voltage Range **Maximum Load** 0.5 A/point, 5.0 A/Unit Current Maximum Inrush 4.0 A/point, 10 ms max. Current 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 20 M $\Omega$ between the external terminals and the GR terminal (100 VDC) Resistance 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 5 VDC 150 mA max. Consumption Fuse **External Power** 20.4 to 26.4 VDC, 55 mA min. Supply Weight 110 g max. Signal Output indicator +V **Circuit Configuration** Internal OUT0 OUT15 СОМ OUT0 Α0 OUT1 L В0 OUT3 (L) B1 OUT4 A2 OUT5 (L) B2 OUT6 A3 OUT7 (L) ВЗ Terminal OUT8 A4 OUT9 L Connections B4 A5 OUT11 L B5 OUT12 A6 OUT13 L В6 OUT14 Α7 OUT15 (L) В7 A8 B8 24 VDC

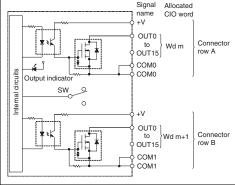
<sup>•</sup> When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.

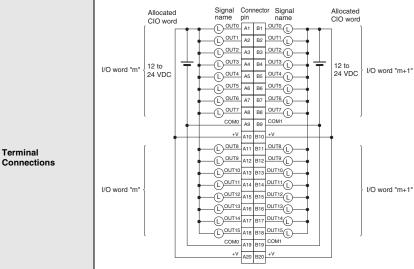
\*Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

# CJ1W-OD231 Transistor Output Unit (32 Points)

Name	32-point Transistor Output Unit with Fujitsu 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.
<b>OFF Response Time</b>	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**





- 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).

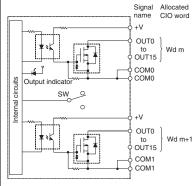
# CJ1W-OD233 Transistor Output Unit (32 Points)

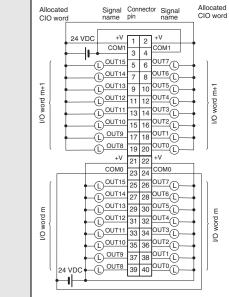
Name	32-point Transistor Output Unit with MIL Connector (Sinking Outputs)
Model	CJ1W-OD233
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.5 A/point, 2 A/common, 4 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.1 ms max.
<b>OFF Response Time</b>	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	12 to 24 VDC, 30 mA min.
Weight	70 g max.

# **Circuit Configuration**

Terminal

Connections





- 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).
- ullet Be sure to wire both terminals 1 and 2 (+ $\dot{V}$ ).

### CJ1W-OD234 Transistor Output Unit (32 Points) Name 32-point Transistor Output Unit with MIL Connector (Sinking Outputs) Model CJ1W-OD234 24 VDC **Rated Voltage Operating Load** 20.4 to 26.4 VDC Voltage Range **Maximum Load** 0.5 A/point, 2 A/common, 4 A/Unit Current **Maximum Inrush** 4.0 A/point, 10 ms max. Current 0.1 mA max. Leakage Current **Residual Voltage** 1.5 V max. **ON Response Time** 15 μs max. **OFF Response Time** 80 μs max. Insulation 20 M $\Omega$ between the external terminals and the GR terminal (100 VDC) Resistance 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 220 mA max. Consumption Fuse None **External Power** 20.4 to 26.4 VDC, 110 mA min. Supply Weight 70 g max. Signal Allocated CIO word +V OUT0 Wd m to OUT15 COM0 Output indicate Circuit Configuration +V OUTO to OUT15 COM1 COM1 Allocated CIO word Allocated Signal Connector Signal 24 VDC +V 1 2 COM: COM1 4 (L)<u>OUT15</u> OUT7(L) 5 6 \_\_\_\_\_ \_\_\_\_OUT14 8 OUT6(L)

### ©OUT13 9 10 OUT5 L I/O word m+1 I/O word m+1 <u>()</u>0UT12 11 12 OUT4 L © OUT11 13 14 OUT3 L OUT10 15 16 OUT2 <u>О ООТ9</u> 17 18 OUT1 OUT8 19 20 OUT0 L +V +V Terminal 21 22 23 24 COM0 СОМО Connections 25 26 OUT7 L \_\_\_\_OUT14 27 28 OUT6 L -<u>OUT13</u> 29 30 OUT5 (L) <u>OUT12</u> 31 32 OUT4 L \_(L)<u>OUT11</u> 33 34 OUT3 L 0 Ó 35 36 OUT2 L <u>OUT9</u> 37 38 OUT1 (L) —<u>Ü</u>OUT8 39 40 OUTO L

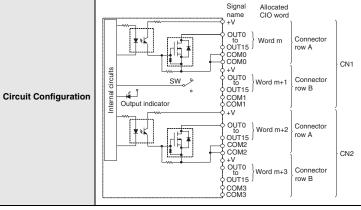
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- Be sure to wire both terminals 23 and 24 (COM0).

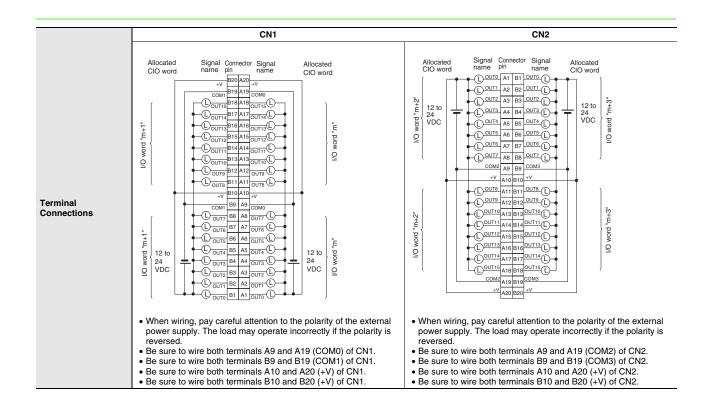
  Be sure to wire both terminals 23 and 4 (COM1).

  Be sure to wire both terminals 2 and 4 (COM1).
- 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).

# CJ1W-OD261 Transistor Output Unit (64 Points)

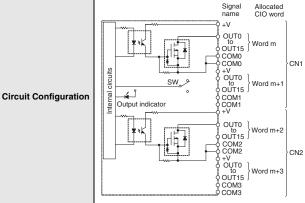
Name	64-point Transistor Output Unit with Fujitsu Connectors (Sinking Outputs)
Model	CJ1W-OD261
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.3 A/point, 1.6 A/common, 6.4 A/Unit
Maximum Inrush Current	3.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
<b>OFF Response Time</b>	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

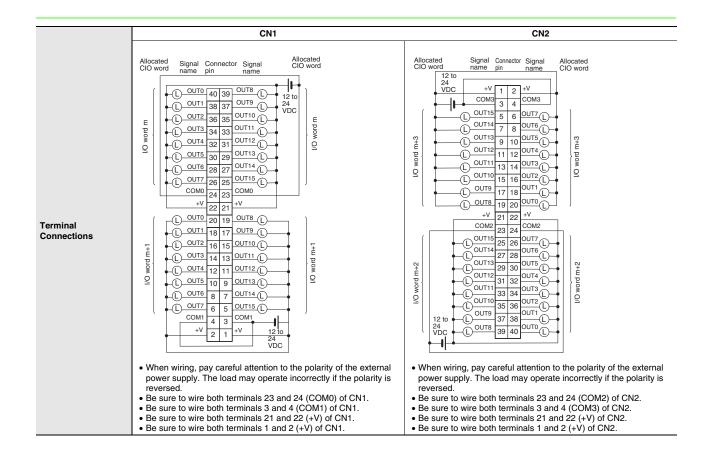




# CJ1W-OD263 Transistor Output Unit (64 Points)

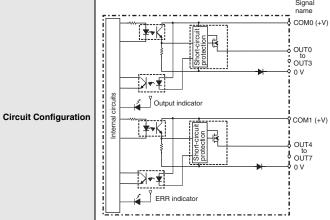
Name	64-point Transistor Output Unit with MIL Connectors (Sinking Outputs)	
Model	CJ1W-OD263	
Rated Voltage	12 to 24 VDC	
Operating Load Voltage Range	10.2 to 26.4 VDC	
Maximum Load Current	0.3 A/point, 1.6 A/common, 6.4 A/Unit	
Maximum Inrush Current	3.0 A/point, 10 ms max.	
Leakage Current	0.1 mA max.	
Residual Voltage	1.5 V max.	
ON Response Time	0.5 ms max.	
OFF Response Time	1.0 ms max.	
Insulation Resistance	20 $\mbox{M}\Omega$ 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	12 to 24 VDC, 50 mA min.	
Weight	110 g max.	
	Signal Allocated	



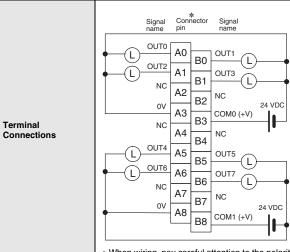


# **CJ1W-OD202 Transistor Output Unit (8 Points)**

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.
<b>OFF Response Time</b>	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	24 VDC, 50 mA min.
Weight	120 g max.



• The ERR indicator will light and the corresponding bit in A050 to A069 (Basic I/O Unit Information, two points per bit) will turn ON if an overcurrent or line disconnection is detected.



When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.

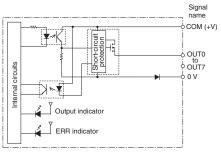
 $<sup>\</sup>label{thm:continuity} \textcolor{red}{\star} \text{Terminal numbers A0 to A8 and B0 to B8 are used in this manual, but they are not printed on the Unit.}$ 

Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O. This Unit is also treated as a 16-point I/O Unit in the I/O tables.

# **CJ1W-OD204 Transistor Output Unit (8 Points)**

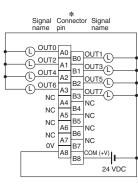
Name	8-point Transistor Output Unit with Terminal Block (Sourcing Outputs)
Model	CJ1W-OD204
Rated Voltage	24 VDC
Operating Load Voltage Range	20.4 to 26.4 VDC
Maximum Load Current	0.5 A/point, 4.0 A/Unit
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.5 ms max.
OFF Response 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 flag in the Basic I/O Unit Information Area (A050 to A069) will turn ON.

# Terminal Connections



• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.

\*Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O. This Unit is also treated as a 16-point I/O Unit in the I/O tables.

### CJ1W-OD212 Transistor Output Unit (16 Points) Name 16-point Transistor Output Unit with Terminal Block (Sourcing Outputs) Model CJ1W-OD212 24 VDC **Rated Voltage Operating Load** 20.4 to 26.4 VDC Voltage Range **Maximum Load** 0.5 A/point, 5.0 A/Unit Current **Maximum Inrush** 0.1 mA max. Current 1.5 V max. Leakage Current **ON Response Time** 0.5 ms max. **OFF Response Time** 1.0 ms max. **Load Short-circuit** Detection current: 0.7 to 2.5 A Protection Automatic restart after error clearance. Insulation 20 M $\Omega$ between the external terminals and the GR terminal (100 VDC) Resistance

1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.

# Circuit Configuration Signal name COM (+V) OUT15 OUT15 O V FERR indicator

16 (16 points/common, 1 circuit)

20.4 to 26.4 VDC, 40 mA min.

5 VDC, 100 mA max.

120 g max.

**Dielectric Strength** 

**Number of Circuits** 

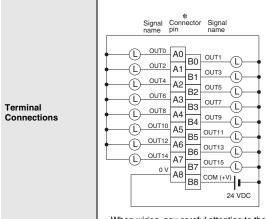
**Internal Current** 

Consumption

External Power

Supply Weight

• When overcurrent is detected, the ERR indicator will light, and the corresponding flag in the Basic I/O Unit Information Area (A050 to A069) will turn ON.

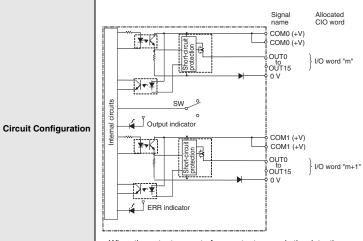


• When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.

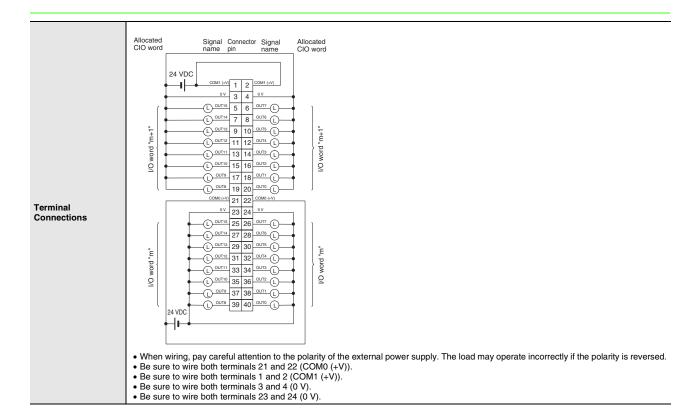
\*Terminal numbers A0 to A8 and B0 to B8 are used in this datasheet, but they are not printed on the Unit.

# CJ1W-OD232 Transistor Output Unit (32 Points)

	100 117 11 0 1 11 11 11 11 11 0 1 1 1 1	
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	

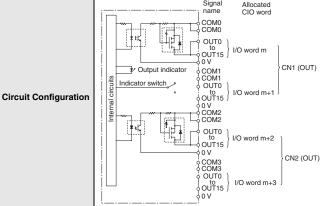


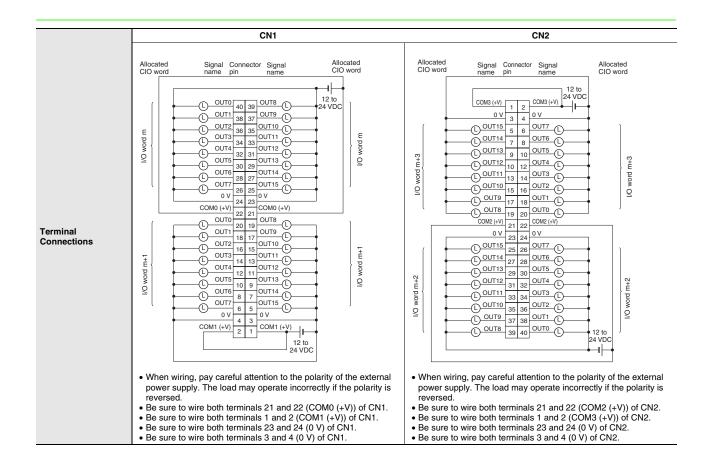
• When the output current of any output exceeds the detection current, the output for that point will turn OFF. At the same time, the ERR indicator will light and the corresponding flag (one for each common) in the Basic I/O Unit Information Area (A050 to A069) will turn ON.



# CJ1W-OD262 Transistor Output Unit (64 Points)

Name	64-point Transistor Output Unit with MIL Connectors (Sourcing Outputs)	
Model	CJ1W-OD262	
Rated Voltage	2 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	$20~\text{M}\Omega$ 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	
	Signal Allocated	





# **Bit Allocations for Output Unit**

# 8-point Output Unit

Allocated CIO word		Cianal nama	
CIO	Bit	Signal name	
	00	OUT0	
	01	OUT1	
	:	:	
	06	OUT6	
Wd m	07	OUT7	
(Output)	08	=	
	09	=	
	:	:	
	14	-	
	15	=	

### **16-point Output Unit**

Allocated CIO word		Cianal name
CIO	Bit	Signal name
	00	OUT0
	01	OUT1
Wd m (Output)	:	:
(Output)	14	OUT14
	15	OUT15

### 32-point Output Unit

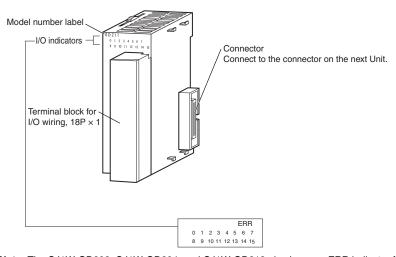
Allocated CIO word		Signal name
CIO	Bit	Signal name
Wd m (Output)	00	OUT0
	01	OUT1
	:	:
	14	OUT14
	15	OUT15
Wd m+1 (Output)	00	OUT0
	01	OUT1
	:	:
	14	OUT14
	15	OUT15

### **64-point Output Unit**

Allocated CIO word		
CIO	Bit	Signal name
	00	OUT0
	01	OUT1
Wd m (Output)	:	:
(Gutput)	14	OUT14
	15	OUT15
	00	OUT0
	01	OUT1
Wd m+1 (Output)	:	:
(Output)	14	OUT14
	15	OUT15
	00	OUT0
	01	OUT1
Wd m+2 (Output)	:	:
(Gutput)	14	OUT14
	15	OUT15
	00	OUT0
	01	OUT1
Wd m+3 (Output)	;	:
(Salpai)	14	OUT14
	15	OUT15

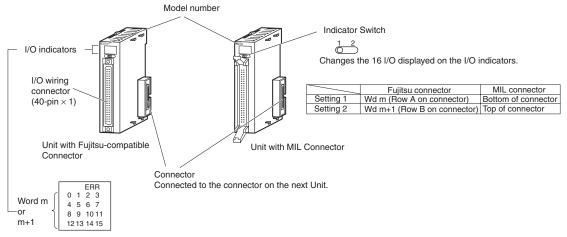
### **External Interface**

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



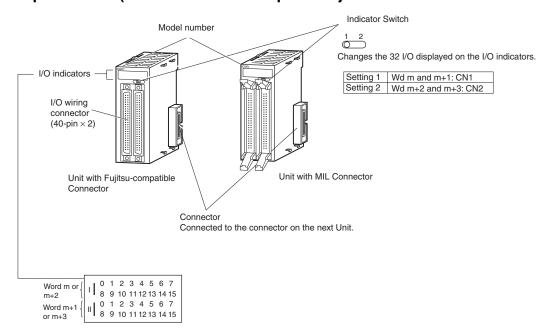
Note: The CJ1W-OD202, CJ1W-OD204, and CJ1W-OD212 also have an ERR indicator for the load short-circuit alarm.

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



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

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



### Wiring Basic I/O Units with Terminal Blocks

### **Electric Wires**

The following wire gauges are recommended.

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

### **Crimp terminals**

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

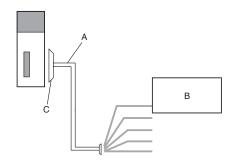


# I/O Unit Wiring Methods

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

### 1. User-provided Cable

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

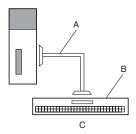


Α	User-provided cable
В	External device
С	Connector

### 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 makes it easy to connect external devices.

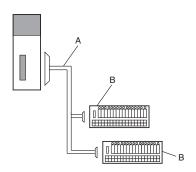


Α	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
В	Connector-Terminal Block Conversion Unit XW2□
С	Conversion to a screw terminal block

### 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.



Α	G79 I/O Relay Terminal Connecting Cable
В	G7□□ I/O Relay Terminals 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	Model Specifications				
CJ1W-OD231	Transistor Output Unit with Sinking Outputs, 32 outputs	40			
CJ1W-OD261	Transistor Output Unit with Sinking Outputs, 64 outputs	40			

### **Applicable Cable-side Connectors**

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

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

Model	Specifications	Pins
CJ1W-OD232	Transistor Output Unit with sourcing outputs, 32 outputs	
CJ1W-OD262	Transistor Output Unit with sourcing outputs, 64 outputs	
CJ1W-OD233 CJ1W-OD234	Transistor Output Unit with sinking outputs, 32 outputs	40
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	FRC5-A040-3T0S

### Wire Size

We recommend using cable with wire gauges of AWG 24 or AWG 28 (0.2 mm² to 0.08 mm²). 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 crimping tools for MIL connectors. Tools for Crimped Connectors (OMRON)

Product Name	Model
Crimping Tool	XY2B-0002
Attachment	XY2B-1007

# 2. Connecting Connector-Terminal Block Conversion Units

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

Pattern	Configuration	Number of Connectors	Branching
Α	Connecting Cable  Connector-Terminal  Block Conversion Unit  40 or 60 terminals	. 1	None
В	Connecting Cable with two branches  Connector-Terminal Block Conversion Unit  20 terminals  20 terminals		2 branches
D	Connecting Cable  Connector-Terminal Block Conversion Unit  40 or 60 terminals  40 or 60 terminals	2	None
F	Connecting Cable with two branches  Connector-Terminal Block Conversion Unit  20 terminals 20 terminals 20 terminals		2 branches

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

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	Connector-Terminal Block Conversion Unit	Common terminal
				Α	None	XW2Z-□□□B	XW2D-40G6	None
				Α	None	XW2Z-□□□B	XW2B-40G5	None
				Α	None	XW2Z-□□□B	XW2B-40G4	None
				Α	None	XW2Z-□□□BU	XW2D-40C6	None
CJ1W-OD231	32 outputs	1 Fujitsu connector	NPN	В	2	XW2Z-□□□L	XW2D-20G6 (2 Units)	None
		CONTICCION		В	2	XW2Z-□□□L	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□L	XW2B-20G4 (2 Units)	None
				В	2	XW2Z-□□□L	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□L	XW2F-20G7-OUT16 (2 Units)	Yes
		1 MIL connector	PNP	Α	None	XW2Z-□□□K	XW2D-40G6	None
				Α	None	XW2Z-□□□K	XW2B-40G5	None
				Α	None	XW2Z-□□□K	XW2B-40G4	None
O HANA O DOGG	00 1 1			В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
CJ1W-OD232	32 outputs			В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
				В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2F-20G7-OUT16 (2 Units)	Yes

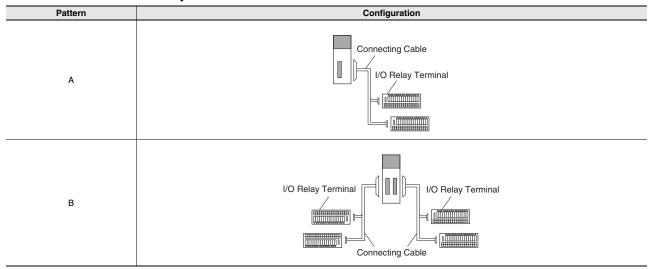
Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	Connector-Terminal Block Conversion Unit	Common terminal
				Α	None	XW2Z-□□□K	XW2D-40G6	None
				Α	None	XW2Z-□□□K	XW2B-40G5	None
				Α	None	XW2Z-□□□K	XW2B-40G4	None
C HW ODOGO	00	1 MIL	NIDNI	В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
CJ1W-OD233	32 outputs	1 MIL connector	NPN	В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
				В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2F-20G7-OUT16 (2 Units)	Yes
				Α	None	XW2Z-□□□K	XW2D-40G6	None
				Α	None	XW2Z-□□□K	XW2B-40G5	None
				Α	None	XW2Z-□□□K	XW2B-40G4	None
014114 00004	00 1 1	4 840	NIDNI	В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
CJ1W-OD234	32 outputs	1 MIL connector	NPN	В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
			ı	В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2F-20G7-OUT16 (2 Units)	Yes
				D	None	XW2Z-□□□B	XW2D-40G6	None
				D	None	XW2Z-□□□B	XW2B-40G5	None
				D	None	XW2Z-□□□B	XW2B-40G4	None
				D	None	XW2Z-□□□BU	XW2D-40C6	None
CJ1W-OD261	64 outputs	2 Fujitsu connectors	NPN	F	2	XW2Z-□□□L	XW2D-20G6 (2 Units)	None
		CONTICCIONS		F	2	XW2Z-□□□L	XW2B-20G5 (2 Units)	None
				F	2	XW2Z-□□□L	XW2B-20G4 (2 Units)	None
				F	2	XW2Z-□□□L	XW2C-20G6-IO16 (2 Units)	Yes
				F	2	XW2Z-□□□L	XW2F-20G7-OUT16 (2 Units)	Yes
				D	None	XW2Z-□□□K	XW2D-40G6	None
				D	None	XW2Z-□□□K	XW2B-40G5	None
				D	None	XW2Z-□□□K	XW2B-40G4	None
C HW ODOCO	C4	2 MIL	PNP	F	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
CJ1W-OD262	64 outputs	connectors		F	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
				F	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
				F	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				F	2	XW2Z-□□□N	XW2F-20G7-OUT16 (2 Units)	Yes
				D	None	XW2Z-□□□K	XW2D-40G6	None
				D	None	XW2Z-□□□K	XW2B-40G5	None
				D	None	XW2Z-□□□K	XW2B-40G4	None
C HW CDOCO	64 6	2 MIL	NIDNI	F	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
CJ1W-OD263	64 outputs	connectors	NPN	F	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
				F	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
				F	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
			İ	F	2	XW2Z-□□□N	XW2F-20G7-OUT16 (2 Units)	Yes

### **Types of Connecting Cables**

Cable length	XW2Z-□□B	XW2Z-□□BU	XW2Z-□□L	XW2Z-□□K	XW2Z-□□N
0.25m	=	=	-	XW2Z-C25K	-
0.5m	XW2Z-050B	XW2Z-050BU	=	XW2Z-C50K	=
1.0m	XW2Z-100B	XW2Z-100BU	XW2Z-100L	XW2Z-100K	XW2Z-100N
1.5m	XW2Z-150B	XW2Z-150BU	XW2Z-150L	XW2Z-150K	XW2Z-150N
2.0m	XW2Z-200B	XW2Z-200BU	XW2Z-200L	XW2Z-200K	XW2Z-200N
3.0m	XW2Z-300B	XW2Z-300BU	XW2Z-300L	XW2Z-300K	XW2Z-300N
5.0m	XW2Z-500B	XW2Z-500BU	XW2Z-500L	XW2Z-500K	XW2Z-500N
10.0m	XW2Z-010B	=	XW2Z-010L	=	XW2Z-010N
15.0m	XW2Z-15MB	=	XW2Z-15ML	=	XW2Z-15MN
20.0m	XW2Z-20MB	-	XW2Z-20ML	=	XW2Z-20MN

# 3. Connecting I/O Relay Terminals

### Connection Patterns for I/O Relay Terminals



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

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	I/O Relay Terminal
CJ1W-OD231		1 Fujitsu connector	NPN	Α	2	G79-O□C-□	G7TC-OC16
				A	2	G79-O□C-□	G7TC-OC08
				Α	2	G79-O□C-□	G70D-SOC16
				Α	2	G79-O□C-□	G70D-FOM16
	32 outputs			Α	2	G79-O□C-□	G70D-VSOC16
				Α	2	G79-O□C-□	G70D-VFOM16
				Α	2	G79-O□C-□	G70A-ZOC16-3 and Relay
				Α	2	G79-O□C-□	G70R-SOC08
				Α	2	G79-O□C-□	G70D-SOC08
		1 MIL connector	PNP	Α	2	G79-I□-□-D1	G7TC-OC16-1
01444 00000				Α	2	G79-O□-□-D1	G70D-SOC16-1
CJ1W-OD232	32 outputs			Α	2	G79-O□-□-D1	G70D-FOM16-1
				Α	2	G79-O□-□-D1	G70A-ZOC16-4 and Relay
		1 MIL connector	NPN	Α	2	G79-O□-□-D1	G7TC-OC16
				Α	2	G79-O□-□-D1	G7TC-OC08
				Α	2	G79-O□-□-D1	G70D-SOC16
				Α	2	G79-O□-□-D1	G70D-FOM16
CJ1W-OD233	32 outputs			Α	2	G79-O□-□-D1	G70D-VSOC16
				Α	2	G79-O□-□-D1	G70D-VFOM16
				Α	2	G79-O□-□-D1	G70A-ZOC16-3 and Relay
				Α	2	G79-O□-□-D1	G70R-SOC08
				Α	2	G79-O□-□-D1	G70D-SOC08
		1 MIL connector	NPN	Α	2	G79-O□-□-D1	G7TC-OC16
CJ1W-OD234				Α	2	G79-O□-□-D1	G7TC-OC08
				Α	2	G79-O□-□-D1	G70D-SOC16
				Α	2	G79-O□-□-D1	G70D-FOM16
	32 outputs			Α	2	G79-O□-□-D1	G70D-VSOC16
				Α	2	G79-O□-□-D1	G70D-VFOM16
				Α	2	G79-O□-□-D1	G70A-ZOC16-3 and Relay
				Α	2	G79-O□-□-D1	G70R-SOC08
				Α	2	G79-O□-□-D1	G70D-SOC08

# CJ1W-OC/OA/OD

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	I/O Relay Terminal
CJ1W-OD261		2 Fujitsu connectors		В	2	G79-O□C-□	G7TC-OC16
			NPN	В	2	G79-O□C-□	G7TC-OC08
				В	2	G79-O□C-□	G70D-SOC16
				В	2	G79-O□C-□	G70D-FOM16
	64 outputs			В	2	G79-O□C-□	G70D-VSOC16
				В	2	G79-O□C-□	G70D-VFOM16
				В	2	G79-O□C-□	G70A-ZOC16-3 and Relay
				В	2	G79-O□C-□	G70R-SOC08
				В	2	G79-O□C-□	G70D-SOC08
CJ1W-OD262		2 MIL connectors	PNP	В	2	G79-I□-□-D1	G7TC-OC16-1
	C4 autouta			В	2	G79-O□-□-D1	G70D-SOC16-1
	64 outputs			В	2	G79-O□-□-D1	G70D-FOM16-1
				В	2	G79-O□-□-D1	G70A-ZOC16-4 and Relay
CJ1W-OD263		2 MIL connectors	NPN	В	2	G79-O□-□-D1	G7TC-OC16
				В	2	G79-O□-□-D1	G7TC-OC08
				В	2	G79-O□-□-D1	G70D-SOC16
				В	2	G79-O□-□-D1	G70D-FOM16
	64 outputs			В	2	G79-O□-□-D1	G70D-VSOC16
				В	2	G79-O□-□-D1	G70D-VFOM16
				В	2	G79-O□-□-D1	G70A-ZOC16-3 and Relay
				В	2	G79-O□-□-D1	G70R-SOC08
				В	2	G79-O□-□-D1	G70D-SOC08

### **Types of Connecting Cables**

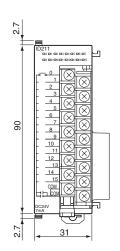
Cable length	G79-O□C-□	G79-O□-□-D1	G79-I□-□-D1
0.25m	_	_	-
0.5m	-	G79-O50-25-D1	G79-I50-25-D1
1.0m	G79-O100C-75	G79-O75-50-D1	G79-I75-50-D1
1.5m	G79-O150C-125	-	-
2.0m	G79-O200C-175	-	-
3.0m	G79-O300C-275	-	-
5.0m	G79-O500C-475	-	-

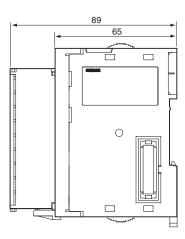
Dimensions (Unit: mm)

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

CJ1W-OC201/ OC211/ OA201/ OD201 / OD202/ OD203/ OD204/ OD211/ OD213 / OD212



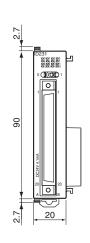


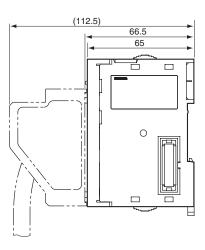


# 32-point Unit (Output Units)

With Fujitsu-Compatible Connector (40-pin  $\times$  1) CJ1W-OD231

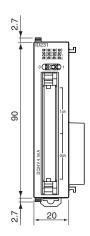


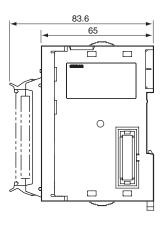




With MIL Connector (40-pin  $\times$  1) CJ1W-OD232 / OD233 / OD234



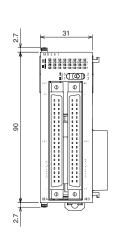


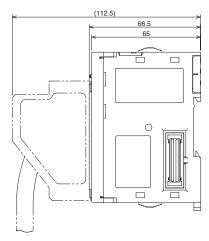


# **64-point Units (Output Units)**

With Fujitsu-Compatible Connector (40-pin  $\times$  2) CJ1W-OD261

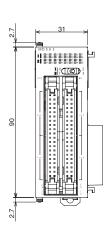


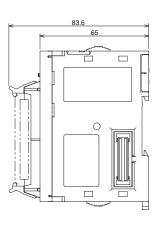




With MIL Connector (40-pin  $\times$  2) CJ1W-OD262 / OD263







# **Related Manuals**

Name	Cat. No.	Contents
CJ-series CJ2 CPU Unit Hardware User's Manual CJ2H-CPU6□-EIP CJ2H-CPU6□	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).
SYSMAC CJ Series CJ1H-CPU H-R, CJ1G/H-CPU H, CJ1G-CPU P, CJ1G-CPU Controllers Operation Manual	W393	Provides an outlines of and describes the design, installation, maintenance, and other basic operations for the CJ-series PLCs.

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