# CJ1W-OC/OA/OD

CSM CJ1W-OUTPUT DS F 8 5

# 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: 15 $\mu$ s, OFF Response Time: 80 $\mu$ s
- · 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**

#### **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			Specifications	No. of words	consu	rent mption A)	Model	Standards		
	name	Output type	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	
	And Andreas	_	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	_	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	-	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	ı	CJ1W-OD261	
		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	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	FCN-361J040-AU FCN-360C040-J2	Connector Connector Cover	Fujitsu Connectors: CJ1W-ID231(32 inputs): 1 per Unit	C500-CE404	
40-pin Connectors	Crimped	FCN-363J040 Housing FCN-363J-AU Contactor		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	Crimped	FCN-363J024 Crimped FCN-363J-AU FCN-360C024-J2		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	Pressure welded	FRC5-AO40-3TOS	MIL Connectors: CJ1W-ID232/233 (32 inputs): 1 per Unit CJ1W-OD232/233/234 (32 outputs):1 per Unit	XG4M-4030-T	-
Connectors	Crimped	-	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	XG5N-401*	
20-pin	Pressure welded FRC5-AO20-3TOS		MIL Connectors:	XG4M-2030-T	
Connectors	Crimped	_	CJ1W-MD232/233 (16 inputs, 16 outputs): 2 per Unit	XG5N-201*	_

<sup>\*</sup> Crimp Contacts are also required. Refer to page 31 for details.

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

		Number	r Wiring	Terminal		Size		Mou	nting	Common Bleeder	Dioodor				
Туре		type	Depth (mm)	Height (mm)	Width (mm)	DIN Track	Screws			Indicators	I/O Units	Model *	Standards		
			Phillips screw										CJ1W-OD231 CJ1W-OD261	XW2R-J34GD-C3	
		M3 50 48.05 130.7			CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263	XW2R-J34GD-C4									
	.Cs XW2R 34		Slotted screw (rise up)										CJ1W-OD231 CJ1W-OD261	XW2R-E34GD-C3	
PLCs		34	M3 (European type)	50 44.81	98.5	Yes	No	No	No	No	CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263	XW2R-E34GD-C4	-		
			Push-in spring Clamp									CJ1W-OD231 CJ1W-OD261	XW2R-P34GD-C3		
				50 44.81		98.5						CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263	XW2R-P34GD-C4		

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

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

Appearance	Connectors	Cable lenght [m]	Model
XW2Z-□□□PF		0.5	XW2Z-050PF
		1	XW2Z-100PF
	One 40-pin Fujitsu Connector to One 40-pin MIL Connector	1.5	XW2Z-150PF
	One 40-pin Fujitsu Connector to One 40-pin Mile Connector	2	XW2Z-200PF
		3	XW2Z-300PF
		5	XW2Z-500PF
(W2Z-□□PM		0.5	XW2Z-050PM
		1	XW2Z-100PM
	One 40 nin MII. Compostor to One 40 nin MII. Compostor	1.5	XW2Z-150PM
	One 40-pin MIL Connector to One 40-pin MIL Connector	2	XW2Z-200PM
		3	XW2Z-300PM
		5	XW2Z-500PM

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

#### Applicable I/O Relay Terminals

				S	pecifications			Size (hor	izontal m	ounting)	Mou	nting											
Туре	Series	Classi	ification	Polarity	Number of points	Rated ON current at contacts	Rated voltage	Horizontal (mm)	Vertical (mm)	Height (mm)	DIN Track	Screws	Model	Standards									
				NPN									G70V-SID16P *4										
			DC	PNP	16	50 A							G70V-SID16P-1 *4										
Push-In	G70V	Inputs	inputs	NPN	(SPSTNO × 16)	50 mA							G70V-SID16P-C16 *5	IIC CE									
Plus	2		PNP			04.VDC	140	00	56	Voc	Vaa	G70V-SID16P-1-C16 *5	UC, CE (TÜV										
terminal				NPN			24 VDC	143	90	56	Yes	Yes	G70V-SOC16P *4	certified)									
block		Outputs	Relay	PNP	16	6 A/point, 10 A/							G70V-SOC16P-1 *4	ĺ									
		Outputs	outputs	NPN	(SPDT × 16)	common							G70V-SOC16P-C4 *6										
			PNP		00							G70V-SOC16P-1-C4 *6											
			AC				100/(110) VAC					G7TC-IA16 AC100/110											
			inputs				200/(220) VAC						G7TC-IA16 AC200/220										
G7TC	Inputs		NPN	16 (SPSTNO × 16)	1A	12 VDC	182					G7TC-ID16 DC12											
		DC inputs		(61 61116 × 16)		24 VDC						G7TC-ID16 DC24											
							100/110 VDC						G7TC-ID16 DC100/110	U, C									
Standard	Standard				8		12 VDC	102	85	68	Yes	No	G7TC-OC08 DC12										
ommonth.		Outputs	Outputs		NPN	(SPSTNO × 8)		24 VDC	102					G7TC-OC08 DC24	, -								
	353			Outpute	Relay	INFIN	16	5A	12 VDC		-				G7TC-OC16 DC12								
		Outputs	outputs		(SPSTNO × 16)	5A	24 VDC	- 182				G7TC-OC16 DC24											
				PNP	16		12 VDC						G7TC-OC16-1 DC12										
				PINP	(SPSTNO × 16)		24 VDC						G7TC-OC16-1 DC24										
High-	G70A *1 (Socket only)		NPN/ PNP	16 (SPDT × 16	100 mA	110 VDC max., 240 VAC max. *2						G70A-ZOC16-5	U, C, CE										
capacity socket			Outpute	Outnuts	Outnute	Outnute	Outnuts	Outnuts	Outnuts	Outnuts	Outnuts	Relay	NPN	possible with G2R Relays)	10 A (Ter- minal	041//D0	234	75	64	Yes	No	G70A-ZOC16-3	(VDE certified)
	4		outputs	PNP		block al- lowable	24 VDC						G70A-ZOC16-4										
	Vertical type G70D-V		Relay outputs			5 A or 3 A *3							G70D-VSOC16										
			MOSFET relay outputs	NPN	16 (SPSTNO × 16)	0.3 A		135	46	81	Yes	Yes	G70D-VFOM16	U, C, CE (VDE certified)									
Space-	Flat type G70D	Outputs		NPN	8 (SPSTNO×8)	5 A	24 VDC	68	93	44			G70D-SOC08										
saving	HILL		Relay outputs	INPIN	16 (SPSTNO × 16)	3 A							G70D-SOC16										
	unner			PNP	16 (SPSTNO × 16)	3 A		156	51	39	Yes	Yes	G70D-SOC16-1	_									
A	1		MOSFET	NPN	16								G70D-FOM16										
	THE STATE OF THE S		relay outputs	PNP	(SPSTNO × 16)	0.3 A						G70D-FOM16-1											
High- capacity, space- saving	G70R	Outputs	Relay outputs	NPN	8 (SPSTNO×8)	10 A	24 VDC	136	93	55	Yes	Yes	G70R-SOC08	-									

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

<sup>\*2.</sup> 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.

<sup>\*4.</sup> Internal common at terminal block: No internal connections

<sup>\*5.</sup> Internal common at terminal block: Internal IO common 16 points internally connected

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

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

2. Please refer to each Datasheet about details.

<sup>3.</sup> 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

Fujitsu connectors (24 pins)  Cables with (1:1)  XW2Z-R□C	16	I/O points	A side B side Device end I/O Relay Terminal	1,0	000	XW2Z-R100C
Fujitsu connectors (24 pins) (1:1)	16	I/O points	Device end I/O Relay Terminal			
Fujitsu connectors (24 pins)		16 I/O points		1,500		XW2Z-R150C
XW2Z-R□C	;			2,0	000	XW2Z-R200C
				3,000		XW2Z-R300C
			L	5,000		XW2Z-R500C
			A side B side	(A) 1,000	(B) 750	XW2Z-RI100C-75
			Device end I/O Relay Terminal	(A) 1,500	(B) 1,250	XW2Z-RI150C-125
	32	input points	←─── (A) ────	(A) 2,000	(B) 1,750	XW2Z-RI200C-175
Cables with	Connectors			(A) 3,000	(B) 2,750	XW2Z-RI300C-275
(1:2)				(A) 5,000	(B) 4,750	XW2Z-RI500C-475
Fujitsu connectors (40 pins)				(A) 1,000	(B) 750	XW2Z-RO100C-75
XW2Z-RI⊡0 XW2Z-RO⊡		32 output points	☐ (120) ☐ ☐	(A) 1,500	(B) 1,250	XW2Z-RO150C-125
XW2Z-NOL				(A) 2,000	(B) 1,750	XW2Z-RO200C-175
	02		(B)	(A) 3,000	(B) 2,750	XW2Z-RO300C-275
			Straight length (without bends)	(A) 5,000	(B) 4,750	XW2Z-RO500C-475
Cables with	Connectors	16 I/O points	A side B side	25	50	XW2Z-RI25C
(1:1)			Device end I/O Relay Terminal	50	00	XW2Z-RI50C
MIL connectors (20 pins)  XW2Z-RI□C				25	50	XW2Z-RO25C
XW2Z-RO□	lC			500		XW2Z-RO50C
				(A) 500	(B) 250	XW2Z-RO50-25-D1
			Ī	(A) 750	(B) 500	XW2Z-RO75-50-D1
			A side B side	(A) 1,000	(B) 750	XW2Z-RO100-75-D1
			Device end I/O Relay Terminal	(A) 1,500	(B) 1,250	XW2Z-RO150-125-D1
			(A) →	(A) 2,000	(B) 1,750	XW2Z-RO200-175-D1
Cables with	Connectors			(A) 3,000	(B) 2,750	XW2Z-RO300-275-D1
(1:2)				(A) 5,000	(B) 4,750	XW2Z-RO500-475-D1
MIL connectors (40 pins)  XW2Z-RO		I/O points		(A) 500	(B) 250	XW2Z-RI50-25-D1
XW2Z-RO⊟-			☐ (120) [ ☐	(A) 750	(B) 500	XW2Z-RI75-50-D1
				(A) 1,000	(B) 750	XW2Z-RI100-75-D1
			(B)	(A) 1,500	(B) 1,250	XW2Z-RI150-125-D1
			Straight length (without bends)	(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

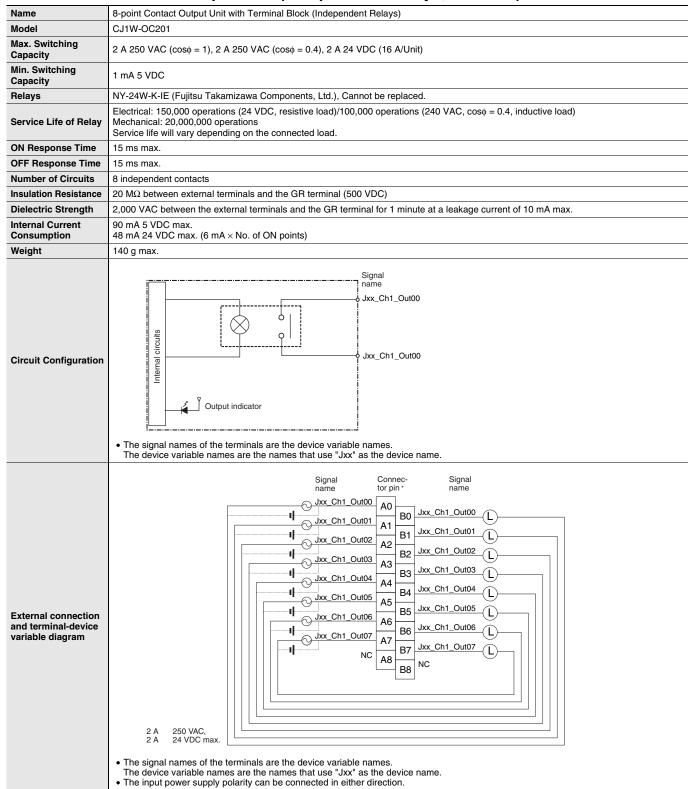
Note: Refer to the Datasheet for the XW2Z-R Cables for I/O Relay Terminals (Cat. No. G126).

# **Mountable Racks**

	NJ s	ystem	CJ system	(CJ1, CJ2)	CP1H system	NSJ system		
Model	CPU Rack	Expansion Rack	CPU Rack	Expansion Backplane	CP1H PLC	NSJ Controller	Expansion Backplane	
CJ1W-OC201								
CJ1W-OC211							10 Units (Per Expansion Backplane)	
CJ1W-OA201								
CJ1W-OD201			10 Units					
CJ1W-OD203								
CJ1W-OD211								
CJ1W-OD213				10 Units (Per Expansion				
CJ1W-OD231		10 Units			Not Supported	Not Supported		
CJ1W-OD233	10 Units	(Per Expansion						
CJ1W-OD234		Rack)		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)



<sup>\*</sup> 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	i 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  Jxx_Ch1_Out00  to  Jxx_Ch1_Out15  COM  COM  COM  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	Signal name									

<sup>\*</sup> 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.

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-OA201 Triac Output Unit (8 Points) 8-point Triac Output Unit with Terminal Block Name Model CJ1W-OA201 Max. Switching 0.6 A 250 VAC, 50/60 Hz (2.4 A/Unit) Capacity 15 A (pulse width: 10 ms max.) Max. Inrush Current Min. Switching 50 mA 75 VAC Capacity 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 5 A (1/common, 1 used) **Fuses** 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 Weight 150 g max. circuits Jxx\_Ch1\_Out00 OJXX\_Ch1\_Out07 **Circuit Configuration** Internal Fuse • 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 Connector pin \* Signal name NC Α0 Jxx\_Ch1\_Out00 B0 NC Jxx\_Ch1\_Out01 B1 NC Α2 Jxx\_Ch1\_Out02 R2 NC А3 Jxx Ch1 Out03 ВЗ **External connection** NC 250 VAC max. and terminal-device Α4 Jxx\_Ch1\_Out04

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

СОМ

B4

B5

В7

B8

Jxx\_Ch1\_Out05

Jxx\_Ch1\_Out06

Jxx\_Ch1\_Out07

• 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.

NC A5

NC

NC A7

NC

A6

Α8

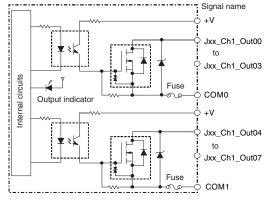
variable diagram

<sup>\*</sup> 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-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 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	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.

Connec-

tor pin

Signal

Signal

#### Jxx\_Ch1\_Out00 Α0 Jxx\_Ch1\_Out01 B0 Α1 Jxx\_Ch1\_Out03 B1 A2 12 to 24 VDC NC B2 COM0 АЗ ВЗ NC Α4 NC B4 Jxx\_Ch1\_Out04 A5 Jxx\_Ch1\_Out05 L B5 Α6 В6 Α7 NC 12 to 24 VDC B7 COM1

**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.

Α8

+V B8

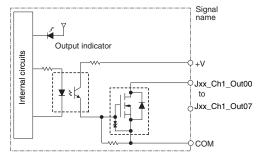
Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

<sup>\*</sup> 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

# CJ1W-OD203 Transistor Output Unit (8 Points)

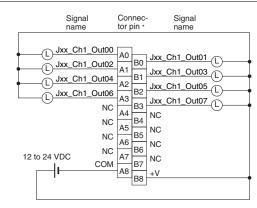
Name	8-point Transistor Output Unit with Terminal Block (Sinking Outputs)
Model	CJ1W-OD203
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.5 A/point, 4.0 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.1 ms max.
<b>OFF Response Time</b>	0.8 ms max.
Insulation Resistance	20 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	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.

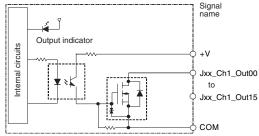
Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

<sup>\*</sup> 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-OD211 Transistor Output Unit (16 Points)

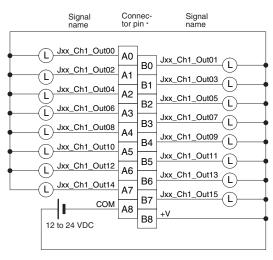
Name	16-point Transistor Output Unit with Terminal Block (Sinking Outputs)
Model	CJ1W-OD211
Rated Voltage	12 to 24 VDC
Operating Load Voltage Range	10.2 to 26.4 VDC
Maximum Load Current	0.5 A/point, 5.0 A/Unit
Maximum Inrush Current	4.0 A/point, 10 ms max.
Leakage Current	0.1 mA max.
Residual Voltage	1.5 V max.
ON Response Time	0.1 ms max.
OFF Response Time	0.8 ms max.
Insulation Resistance	$20~\text{M}\Omega$ 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	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.
	[F

# **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.

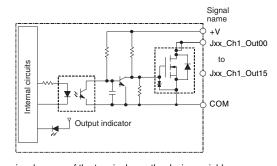
The signal names of the terminals are the device variable names.
 The device variable names are the names that use "Jxx" as the device name.

<sup>\*</sup> 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	0.4 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	1 mA max.		
Residual Voltage	.5 V max.		
ON Response Time	15 μs max.		
<b>OFF Response Time</b>	80 μs max.		
Insulation Resistance	20 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	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.		

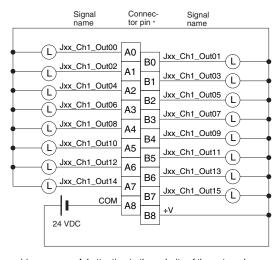
# Circuit Configuration



• 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

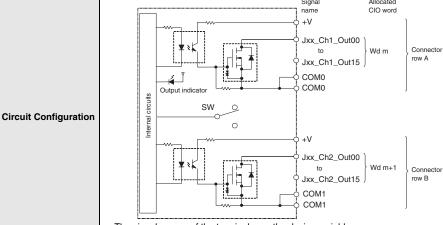


- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
  The signal names of the terminals are the device variable names.
- The device variable names are the names that use "Jxx" as the device name.

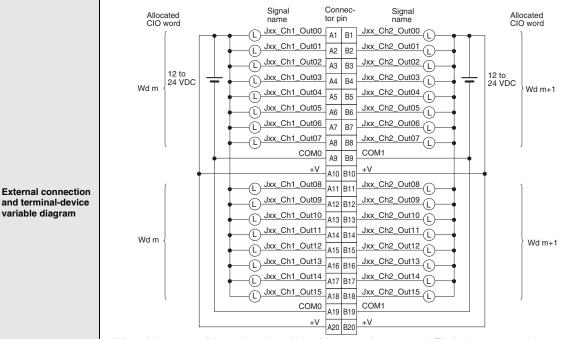
<sup>\*</sup> Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

# CJ1W-OD231 Transistor Output Unit (32 Points)

Name	32-point Transistor Output Unit with Fujitsu 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 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	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			
	Signal Allocated			



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



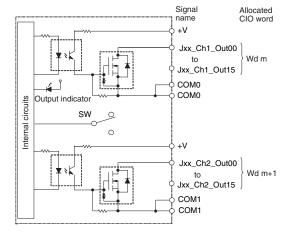
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
  Be sure to wire both terminals A9 and A19 (COM0).
  Be sure to wire both terminals B9 and B19 (COM1).
  Be sure to wire both terminals A10 and A20 (+V).
  Be sure to wire both terminals B10 and B20 (+V).
  The signal pages of the terminals are the device variable pages.

- 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)

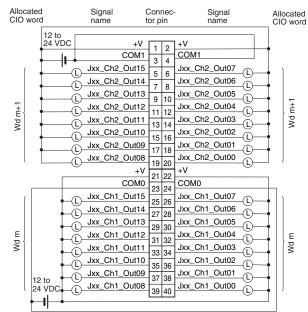
Name	32-point Transistor Output Unit with MIL Connector (Sinking Outputs)			
Model	CJ1W-OD233			
Rated Voltage	2 to 24 VDC			
Operating Load Voltage Range	0.2 to 26.4 VDC			
Maximum Load Current	0.5 A/point, 2 A/common, 4 A/Unit			
Maximum Inrush Current	4.0 A/point, 10 ms max.			
Leakage Current	0.1 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 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	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)

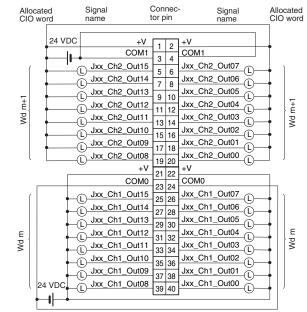
Name	32-point Transistor Output Unit with MIL Connector (Sinking Outputs)		
Model	CJ1W-OD234		
Rated Voltage	24 VDC		
Operating Load Voltage Range	20.4 to 26.4 VDC		
Maximum Load Current	0.5 A/point, 2 A/common, 4 A/Unit		
Maximum Inrush Current	4.0 A/point, 10 ms max.		
Leakage Current	0.1 mA max.		
Residual Voltage	1.5 V max.		
ON Response Time	15 μs max.		
OFF Response Time	80 μs max.		
Insulation Resistance	$20 \text{ M}\Omega$ 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	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.		
	1		

Signal name

CIO word

#### Jxx\_Ch1\_Out00 Wd m Jxx\_Ch1\_Out15 COMO 5 сомо Internal circuits **Circuit Configuration** SW Jxx\_Ch2\_Out00 to Wd m+1 Jxx\_Ch2\_Out15 COM1 COM<sub>1</sub>

• 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.

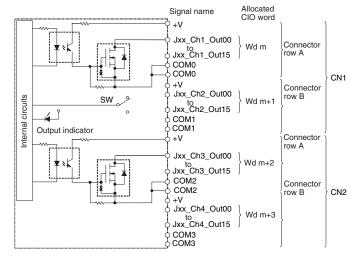


- **External connection** and terminal-device variable diagram
- . When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- Be sure to wire both terminals 23 and 24 (COM0).
- Be sure to wire both terminals 3 and 4 (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 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 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	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		

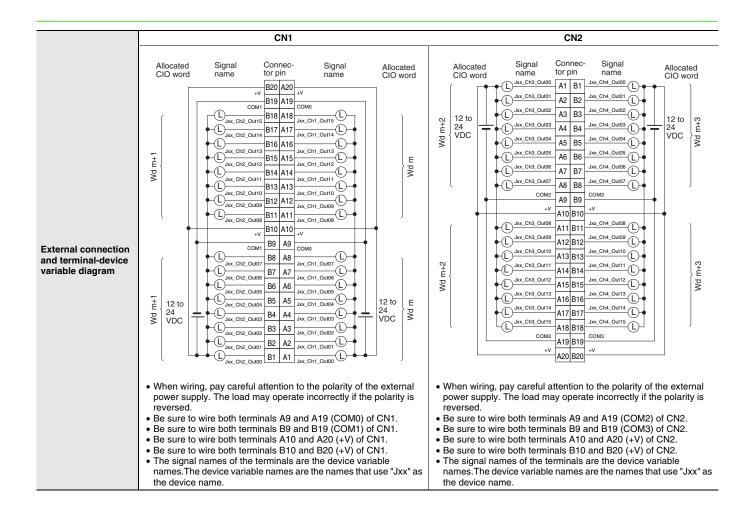


Circuit Configuration

The signal names of the terminals are the device variable names.

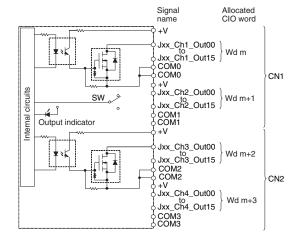
The device variable names are the names that use "Jxx" as the device name.

#### CJ1W-OC/OA/OD



# **CJ1W-OD263 Transistor Output Unit (64 Points)**

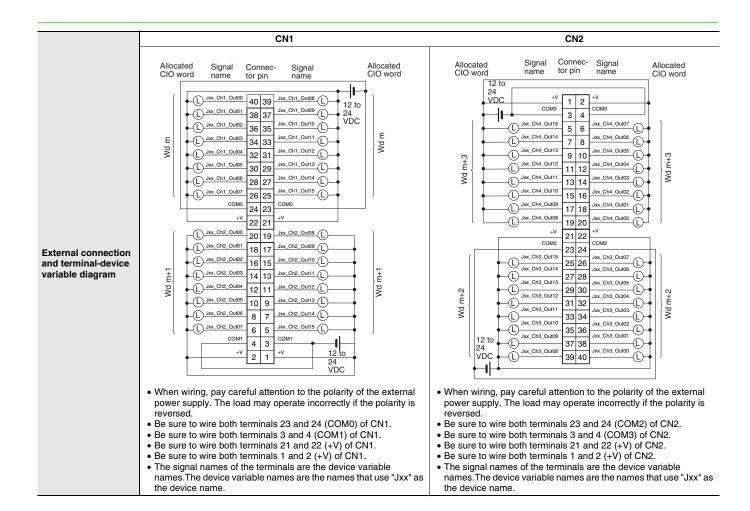
Name	64-point Transistor Output Unit with MIL Connectors (Sinking Outputs)	
Model	CJ1W-OD263	
Rated Voltage	12 to 24 VDC	
Operating Load Voltage Range	10.2 to 26.4 VDC	
Maximum Load Current	0.3 A/point, 1.6 A/common, 6.4 A/Unit	
Maximum Inrush Current	3.0 A/point, 10 ms max.	
Leakage Current	0.1 mA max.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



# **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	.5 V max.		
ON Response Time	1.5 ms max.		
OFF Response Time	.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 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	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 Signal name COM0 (+V) Jxx\_Ch1\_Out00 0 V Syx\_Ch1\_Out03 0 V COM1 (+V) Jxx\_Ch1\_Out04 Jxx\_Ch1\_Out04 Jxx\_Ch1\_Out04 O V ERR indicator

- 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

tor pin' Jxx\_Ch1\_Out00 Α0 Jxx\_Ch1\_Out01 B0 Α1 Jxx\_Ch1\_Out03 L В1 NC Α2 NC B2 24 VDC 0 V АЗ COM0 (+V) ВЗ NC Α4 **External connection** B4 and terminal-device A5 variable diagram B5 Jxx\_Ch1\_Out06 A6 Jxx\_Ch1\_Out07 B6 NC Α7 B7 0 V 24 VDC Α8 COM1 (+V) В8

- 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.

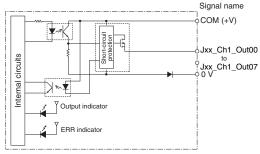
Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

<sup>\*</sup> 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-OD204 Transistor Output Unit (8 Points)**

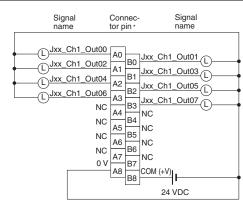
Name	8-point Transistor Output Unit with Terminal Block (Sourcing Outputs)	
Model	CJ1W-OD204	
Rated Voltage	24 VDC	
Operating Load Voltage Range	20.4 to 26.4 VDC	
Maximum Load Current	0.5 A/point, 4.0 A/Unit	
Leakage Current	0.1 mA max.	
Residual Voltage	1.5 V max.	
ON Response Time	0.5 ms max.	
OFF 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 $M\Omega$ 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	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.	
	Signal name	

# 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.

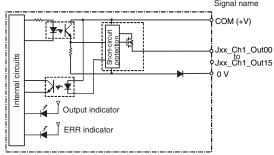
Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

<sup>\*</sup> 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-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 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	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.	
	Signal name	

# **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

Connector pin \* Signal Signal Jxx Ch1 Out00 Α0 Jxx\_Ch1\_Out01 В0 В1 Α2 Jxx\_Ch1\_Out05 B2 Jxx\_Ch1\_Out07 ВЗ Jxx\_Ch1\_Out08 **External connection** Jxx\_Ch1\_Out09 В4 and terminal-device variable diagram Jxx Ch1 Out11 B5 (L) Jxx Ch1 Out12 Jxx\_Ch1\_Out13 L Jxx\_Ch1\_Out14 B6 Jxx\_Ch1\_Out15 B7 Α8 COM (+V) B8 24 VDC

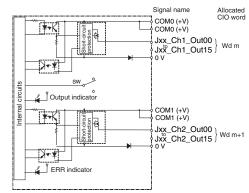
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
  The signal names of the terminals are the device variable names.

The device variable names are the names that use "Jxx" as the device name.

<sup>\*</sup> 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.

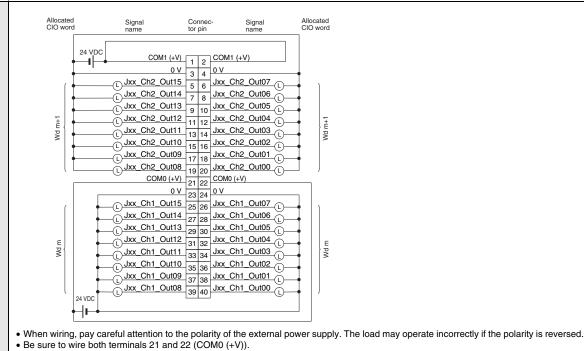
# CJ1W-OD232 Transistor Output Unit (32 Points)

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	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 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	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.

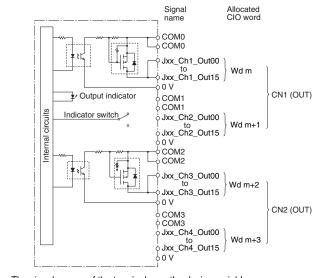


**External connection** and terminal-device variable diagram

- 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)**

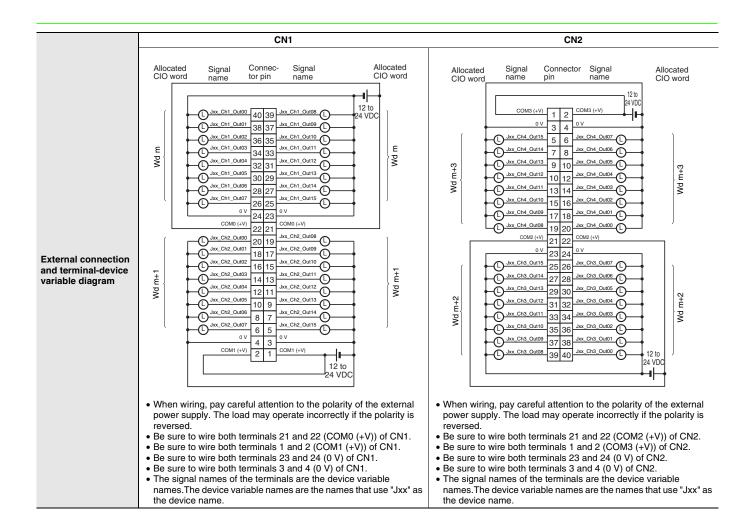
Name	64-point Transistor Output Unit with MIL Connectors (Sourcing Outputs)		
Model	CJ1W-OD262		
Rated Voltage	12 to 24 VDC		
Operating Load Voltage Range	10.2 to 26.4 VDC		
Maximum Load Current	0.3 A/point, 1.6 A/common, 6.4 A/Unit		
Maximum Inrush Current	3.0 A/point, 10 ms max.		
Leakage Current	0.1 mA max.		
Residual Voltage	1.5 V max.		
ON Response Time	0.5 ms max.		
OFF Response Time	1.0 ms max.		
Insulation Resistance	$20~\text{M}\Omega$ 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		



**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.



# **Bit Allocations for Output Unit**

# 8-point Output Unit

Allocated	Cirrol roma (O I/N I)		
CIO	Bit	Signal name (CJ/NJ)	
	00	OUT0/Jxx_Ch1_Out00	
	01	OUT1/Jxx_Ch1_Out01	
	:	:	
	06	OUT6/Jxx_Ch1_Out06	
Wd m	07	OUT7/Jxx_Ch1_Out07	
(Output)	08	_	
	09	_	
	:	:	
	14	_	
	15	_	

#### 32-point Output Unit

Allocated CIO word		Signal name (CJ/NJ)	
CIO	Bit	Signal name (Co/No)	
	00	OUT0/Jxx_Ch1_Out00	
	01	OUT1/Jxx_Ch1_Out01	
Wd m (Output)	:	:	
(Output)	14	OUT14/Jxx_Ch1_Out14	
	15	OUT15/Jxx_Ch1_Out15	
Wd m+1 (Output)	00	OUT0/Jxx_Ch2_Out00	
	01	OUT1/Jxx_Ch2_Out01	
	:	:	
(Calput)	14	OUT14/Jxx_Ch2_Out14	
	15	OUT15/Jxx_Ch2_Out15	

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

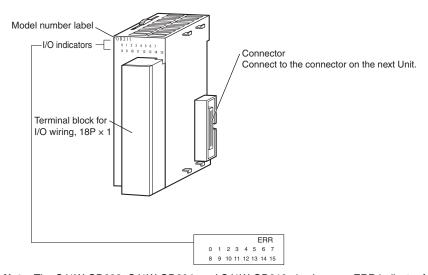
Allocated CIO word		Cinnal name (C I/N I)	
CIO	Bit	Signal name (CJ/NJ)	
Wd m (Output)	00	OUT0/Jxx_Ch1_Out00	
	01	OUT1/Jxx_Ch1_Out01	
	:	:	
	14	OUT14/Jxx_Ch1_Out14	
	15	OUT15/Jxx_Ch1_Out15	

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

Allocated CIO word			
CIO	Bit	Signal name (CJ/NJ)	
	00	OUT0/Jxx_Ch1_Out00	
	01	OUT1/Jxx_Ch1_Out01	
Wd m (Output)	:	:	
(Gaipai)	14	OUT14/Jxx_Ch1_Out14	
	15	OUT15/Jxx_Ch1_Out15	
	00	OUT0/Jxx_Ch2_Out00	
	01	OUT1/Jxx_Ch2_Out01	
Wd m+1 (Output)	:	:	
(Output)	14	OUT14/Jxx_Ch2_Out14	
	15	OUT15/Jxx_Ch2_Out15	
	00	OUT0/Jxx_Ch3_Out00	
	01	OUT1/Jxx_Ch3_Out01	
Wd m+2 (Output)	:	:	
(Output)	14	OUT14/Jxx_Ch3_Out14	
	15	OUT15/Jxx_Ch3_Out15	
	00	OUT0/Jxx_Ch4_Out00	
	01	OUT1/Jxx_Ch4_Out01	
Wd m+3 (Output)	:	:	
(σαιραί)	14	OUT14/Jxx_Ch4_Out14	
	15	OUT15/Jxx_Ch4_Out15	

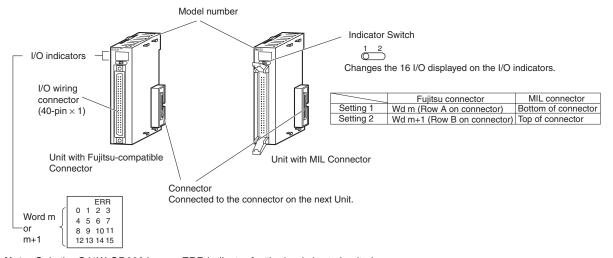
#### **External Interface**

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



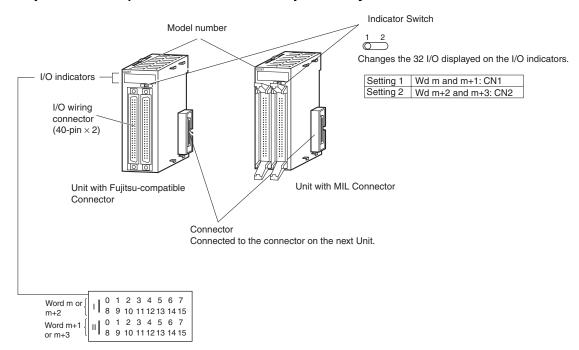
Note: The CJ1W-OD202, CJ1W-OD204, and CJ1W-OD212 also have an ERR indicator for the load short-circuit alarm.

# 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.

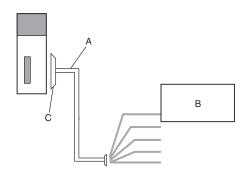


### I/O Unit Wiring Methods

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.

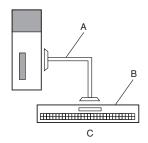


Α	User-provided cable
В	External device
С	Connector

#### 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 or push-in terminal block makes it easy to connect external devices.

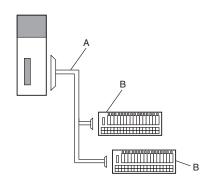


A	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
В	Connector-Terminal Block Conversion Unit XW2R
С	Conversion to a screw terminal block

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

# 1. Using User-made Cables with Connector

#### **Available Connectors**

Use the following connectors when assembling a connector and cable.

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

Model	Specifications	Pins
CJ1W-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 *1	FRC5-A040-3T0S
	40	XG5N-401 *2	HU-40OS2-001
Crimped	_	Crimp Contacts for XG5N *3 XG5W-0232 (loose contacts: 100 pieces) XG5W-0232-R (reel contacts: 10,000 pieces)	HU-111S

<sup>\*1.</sup> Socket and Stain Relief set.

#### Wire Size

We recommend using cable with wire gauges of AWG 28 to 24 (0.08 to 0.2 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 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)**

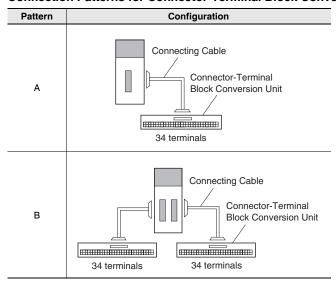
Product Name	Model			
Manual Crimping Tool	XY2B-7007			

<sup>\*2.</sup> Crimp Contacts (XG5W-0232) are sold separately.

<sup>\*3.</sup> Applicable wire size is AWG 28 to 24. For applicable conductor construction and more information, visit the OMRON website at www.ia.omron.com.

# 2. Connecting Connector-Terminal Block Conversion Units

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



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

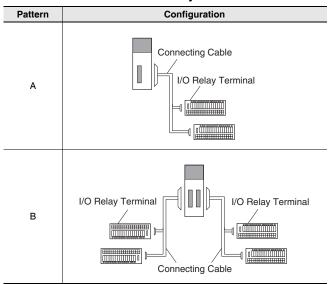
Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Connecting Cable *	Connector-Terminal Block Conversion Unit	Wiring method	Common terminals	
(:11W-()1)231   32 Authorite	1 Fujitsu		A	XW2Z-□□□PF	XW2R-J34G-C3	Phillips screw	No		
		NPN			XW2R-E34G-C3	Slotted screw (rise up)			
		CONTICCTO				XW2R-P34G-C3	Push-in spring		
				А	XW2Z-□□PM	XW2R-J34G-C4	Phillips screw	No	
CJ1W-OD232	32 outputs	1 MIL connector	PNP			XW2R-E34G-C4	Slotted screw (rise up)		
		COMMODICA				XW2R-P34G-C4	Push-in spring		
						XW2R-J34G-C4	Phillips screw		
CJ1W-OD233 32 outputs	1 MIL connector	NPN	A	XW2Z-□□□PM	XW2R-E34G-C4	Slotted screw (rise up)	No		
					XW2R-P34G-C4	Push-in spring			
						XW2R-J34G-C4	Phillips screw		
CJ1W-OD234 32 outputs	1 MIL connector	NPN	Α	XW2Z-□□□PM	XW2R-E34G-C4	Slotted screw (rise up)	No		
		CONTICCTOR				XW2R-P34G-C4	Push-in spring		
		2 Fujitsu			XW2Z-□□□PF (2 pcs)	XW2R-J34G-C3 (2 Units)	Phillips screw	No	
CJ1W-OD261 64 outputs	64 outputs		NPN	В		XW2R-E34G-C3 (2 Units)	Slotted screw (rise up)		
	COMICCIOIS			(2 pos)	XW2R-P34G-C3 (2 Units)	Push-in spring			
CJ1W-OD262 64 outputs	tputs 2 MIL connectors		В	XW2Z-□□□PM (2 pcs)	XW2R-J34G-C4 (2 Units)	Phillips screw			
		PNP			XW2R-E34G-C4 (2 Units)	Slotted screw (rise up)	No		
		Connectors			(2 pos)	XW2R-P34G-C4 (2 Units)	Push-in spring		
CJ1W-OD263 64 out		2 MIL connectors	tors NPN	В	XW2Z-□□PM (2 pcs)	XW2R-J34G-C4 (2 Units)	Phillips screw		
	64 outputs					XW2R-E34G-C4 (2 Units)	Slotted screw (rise up)	No	
						XW2R-P34G-C4 (2 Units)	Push-in spring		

<sup>\*</sup> The box □ is replaced by the cable length.

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

# 3. Connecting I/O Relay Terminals

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



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

I/O Units			Connection	Connecting Cables		I/O Relay Terminals				
Model	I/O capacity	External connectors	Polarity	pattern	Model *1	Quantity required	Model	I/O points	Quantity required	Wiring method
CJ1W-OD231 32 outp					XW2Z-RO□C-□	1	G70V-SOC16P(-C4)	16	2	Push-in spring
							G7TC-OC16	16		
	00	1 Fujitsu	Sinking (NPN)	A			G70D-SOC/FOM16	16		
	32 outputs	connector (40 p)					G70D-VSOC16/VFOM16	16		Screw terminal
		(40 p)					G70A-ZOC16-3 *3	16		
							G70R-SOC08 *2	8		
					XW2Z-RO□-□-D1		G70V-SOC16P-1(-C4)	16	2	Push-in spring
CJ1W-OD232	20 autouta	1 MIL	Sourcing (PNP)	А		1	G70A-ZOC16-4 *3	16		
JJ 1 W-OD232	32 outputs	connector (40 p)					G70D-SOC/FOM16-1	16		Screw terminal
		(40 p)			XW2Z-RI□-□-D1	1	G7TC-OC16-1	16		
							G70V-SOC16P(-C4)	16		Push-in spring
							G7TC-OC16	16		
2 14 W O D 000	00	1 MIL	Sinking	А	XW2Z-RO□-□-D1	1	G70D-SOC/FOM16	16	2	Screw terminal
CJ1W-OD233	32 outputs	utputs connector (40 p)	(NPN)				G70D-VSOC16/VFOM16	16		
		(40 p)					G70A-ZOC16-3 *3	16		
							G70R-SOC08 *2	8		
			Sinking (NPN)	A	XW2Z-RO□C-□	1	G70V-SOC16P(-C4)	16	2	Push-in spring
							G7TC-OC16	16		Screw terminal
2 14 W O D 0 0 4	00	1 MIL					G70D-SOC/FOM16	16		
CJ1W-OD234	32 outputs	connector (40 p)					G70D-VSOC16/VFOM16	16		
		(40 β)					G70A-ZOC16-3 *3	16		
							G70R-SOC08 *2	8		
		2 Fujitsu connectors (40 p)			XW2Z-RO□C-□	2	G70V-SOC16P(-C4)	16	4	Push-in spring
	64 outputs		Sinking (NPN)	В			G7TC-OC16	16		Screw terminal
2 14144 0 0 0 0 0 4							G70D-SOC/FOM16	16		
CJ1W-OD261							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *3	16		
							G70R-SOC08 *2	8		
		2 MIL connectors (40 p)	nnectors Sourcing		XW2Z-RO□-□-D1	2	G70V-SOC16P-1(-C4)	16	4	Push-in spring
0 14144 0 0 0 0 0 0							G70A-ZOC16-4 *3	16		Screw terminal
CJ1W-OD262 64 outp	64 outputs						G70D-SOC/FOM16-1	16		
					XW2Z-RI□-□-D1	2	G7TC-OC16-1	DC16-1 16		
	64 outputs	2 MIL connectors (40 p)	Sinking (NPN)	В	XW2Z-RO□-□-D1	2	G70V-SOC16P(-C4)	16	4	Push-in spring
							G7TC-OC16	16		Screw terminal
21414 00000							G70D-SOC/FOM16	16		
CJ1W-OD263							G70D-VSOC16/VFOM16	16		
							G70A-ZOC16-3 *3	16		
							G70R-SOC08 *2	8		

<sup>\*1.</sup> The box  $\square$  is replaced by the cable length.

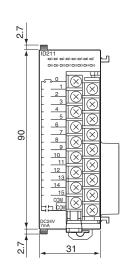
<sup>\*2.</sup> In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.
\*3. The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately. In addition, an G70A-ZOC16-3/4 will be SPDT × 16 points with G2R relays.

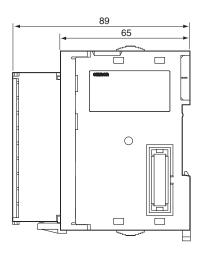
Dimensions (Unit: mm)

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

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



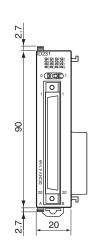


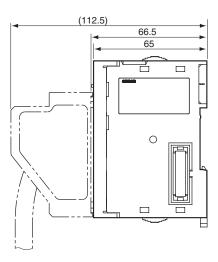


# 32-point Unit (Output Units)

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

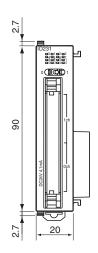


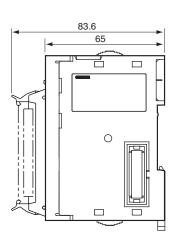




With MIL Connector (40-pin  $\times$  1) CJ1W-OD232 / OD233 / OD234



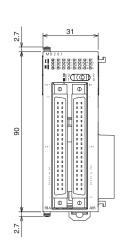


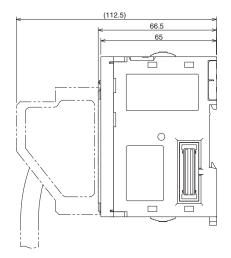


# **64-point Units (Output Units)**

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

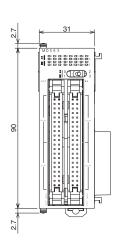


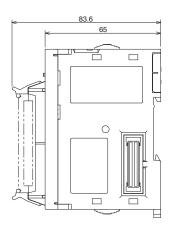




With MIL Connector (40-pin  $\times$  2) CJ1W-OD262 / OD263







# **Related Manuals**

Name	Cat. No.	Contents		
CJ-series CJ2 CPU Unit Hardware User's Manual CJ2H-CPU6□-EIP CJ2H-CPU6□ 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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Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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