## **CJ-series Input Units**

# CJ1W-ID/IA

特力材料886-3-5753170 胜特力电子(上海) 86-21-34970699 胜特力电子(深圳) 86-755-83298787 Http://www. 100y. com. tw

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

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







CJ1W-ID212

CJ1W-ID233

## **Features**

- High-speed input models are available, meeting versatile applications. ON Response Time: 15µs, OFF Response Time: 90µs
- Use 24-VDC, 100-VAC, and 200-VAC models to connect to devices with different types of outputs.
- The 24-VDC models can be connected to devices with either NPN or PNP outputs. There is no need to select the polarity. \*1
- A digital filter in the Unit can be set from 0 to 32 ms to reduce the influence of external noise.
- Either a Fujitsu or MIL connector interface can be used. \*2
- · Several models of Terminal Block Conversion Units are available, making it easy to connect to external devices.
- \*1. The same polarity is used for the same common.
- \*2. For models with 32 or 64 inputs.

## **Ordering Information**

#### **International Standards**

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

## **Input Units**

Unit type	Product	MMM	100 X COM SI	pecifications	WWW.I	100X.CC	consu	rent mption A)		
Unit type	name	I/O points	Input voltage and current	Commons	External connection	No. of words allocated	5 V	24 V	Model	Standards
COM		8 inputs	12 to 24 VDC, 10 mA	Independent contacts	Removable terminal block	1 word	0.09	. FW	CJ1W-ID201	UC1, N, L,
	DC Input Units	16 inputs	24 VDC, 7 mA	16 points, 1 common	Removable terminal block	1 word	80.0	-	CJ1W-ID211	CE
		16 inputs (High speed)	24 VDC, 7 mA	16 points, 1 common	Removable terminal block	1 word	0.13		CJ1W-ID212	N, L, CE
		32 inputs	24 VDC, 4.1 mA	16 points, 1 common	Fujitsu connector	2 words	0.09	$\frac{COM}{M}$	CJ1W-ID231	UC1, N, L,
		32 inputs	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	2 words	0.09	i.CON	CJ1W-ID232	CE
CJ1 Basic I/O Units		32 inputs (High speed)	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	2 words	0.20	X.CO	CJ1W-ID233	N, L, CE
		64 inputs	24 VDC, 4.1 mA	16 points, 1 common	Fujitsu connector	4 words	0.09	07.0	CJ1W-ID261	
	M.C.C.	64 inputs	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	4 words	0.09	1001	CJ1W-ID262	
	AC Input Units	8 inputs	200 to 24 VAC, 10 mA (200 V, 50 Hz)	8 points, 1 common	Removable Terminal Block	1 words	0.08	V.100	CJ1W-IA201	UC1, N, L, CE
		16 inputs	100 to 120 VAC, 7 mA (100 V, 50 Hz)	16 points, 1 common	Removable Terminal Block	1 words	0.09	W. 7	CJ1W-IA111	TW

#### 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	Remark	ks	Applicable Units	Model	Standards
LIW	Soldered	FCN-360C040-J2	Connector Connector Cover	Fujitsu Connectors: CJ1W-ID231(32 inputs): 1 per Unit	C500-CE404	
40-pin Connectors	Crimped	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 CJ1W-MD261 (32 inputs, 32 outputs): 2 per Unit	C500-CE405	
	Pressure welded	FCN-367J040-AU/F	W	WWW.conv.co.	C500-CE403	
COM.T	Soldered	FCN-360C024-J2	Connector Connector Cover	WWW.100Y.COM.TW	C500-CE241	_
24-pin Connectors	Crimped	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	U A	THE WAY TOOK .	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

	100	$_{7}$ CO $_{1}$	None	T	-XIV	Size		Mo	unting	Common	Bleeder	V	COM	
Туре	pe Series	1/0	Number of poles	Terminal type	Depth (mm)	Height (mm)	Width (mm)	DIN Track	Screws	terminals	resistance	Indicators	Model	Standards
NA .	X 100 -	) > -	20	7	-	- 111	79	- (	Mr.	- 41	-11	M.10.	XW2D-20G6	× 1 1
		I/O	- N T	W		1111	1100	N.C.	~1.7	N.	No	-x11(	XW2D-40G6	111
Slim	XW2D	~ < 7 (	40	М3	39	40	149	Yes	Yes	No	1	No	XW2D-40C6	W
		Inputs	40	7.11			149	0 .	MOD	1	Built-in	WW.	XW2D-40G6-RF	-51
W	$M_{Ms}$	only	Cor	WT			-1	OOX			Duilt-III		XW2D-40G6-RM	TW
	TIVI	Too	7 CO	M3.5		-31	112.5	- 01	$^{1}$ C $O_{R}$	TIN		WWW	XW2B-20G5	WT.
T	MAGE	N.100	20	M3 (European type)	45	67.5	OX.COM	M.I.V	WILL.	WW	XW2B-20G4	M.TV		
Through	XW2B	I/O	NV.C	M3.5	45	45.3	202.5	Yes	Yes	No	No	No	XW2B-40G5	Tre
	W	NW.1	40	M3 (European type)	M		135	W.L	100X.	$O_{M}$	LM.	W	XW2B-40G4	$O_{M}$
With		I/O	20	M3	39	40	149		1007		TW	No	XW2C-20G6-IO16	Wo.
common terminals	XW2C	Inputs only	20	M3.5	50	38	160	Yes	Yes	Yes	No	Yes	XW2C-20G5-IN16	I.Con
With common terminals, 3-tier	XW2E	Inputs only, 3 tiers	20	M3.5	50	53	149	Yes	Yes	Yes	No	No	XW2E-20G5-IN16	M.C.
Screwless	XW2F	Inputs only	20	Clamp	50	40	95.5	Yes	Yes	Yes	No	No	XW2F-20G7-IN16	100 X.C
clamp terminals	AVV2F	Outputs only	20	Clamp	50	40	95.5	Yes	Yes	Yes	No	No	XW2F-20G7-OUT16	100X
e-CON	XW2N	Inputs only	20	e-CON connector	50	40	95.5	Yes	Yes	Yes	No	No	XW2N-20G8-IN16	N.100

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

## Applicable I/O Relay Terminals

			Specifications								(horizor ounting)		Mou	ınting				
Туре	Se	Series		ification	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	Standards		
	W	Vertical	WV	Relay outputs	00Y.	16	5A or 3A		11111	100X	Co	M.T	N		G70D-VSOC16	U, C,		
		type G70D-V	W	MOSFET relay outputs	NPN	(SPST- NO × 16)	0.3A	Yes	Expandable	135	46	81	Yes	Yes	G70D-VFOM16	CE		
	1.1			WWY	1.100	8 (SPST- NO × 8)	5A	Ń	WV	68	93	44	TT		G70D-SOC08	-		
Space- saving	G70D	Out Flat type G70D	Outputs	Relay outputs	NPN	16 (SPST- NO × 16)	3A	W	W	NW.L	100X	$CO_{b}$	Yes	W	G70D-SOC16			
	COM		type		W	PNP	16 (SPST- NO × 16)	3A	Yes	- 1	156 51	39		Yes	G70D-SOC16-1			
	$CO_1$	17.7	N	MOSFET relay	NPN	16 (SPST-	0.3A	TW		WW	N.10	OOY.			G70D-FOM16			
700.	V.C	$M_{17}$	W	outputs	PNP	NO × 16)	0.3A	VI.	J	WV	11.1	OOY		~1J	G70D-FOM16-1	_		
High- capacity, space- saving	G70R		Outputs	Relay outputs	NPN	8 (SPST- NO × 8)	10A	Yes	W _	136	93	55	Yes	Yes	G70R-SOC08	_		
NW.	N.100 CO	Inputs	AC inputs		16	Too.	I COMP.	TW		WW	N.32	NOV.	COp	G7TC-IA16				
	700			DC inputs	NPN	(SPST- NO × 16)	1A	CON	WTN	182	WV	W.	1001	I.CO	G7TC-ID16			
Standard	G7TC	TOON C	ЭТС	OM OME	WI		8 (SPST- NO × 8)	W.10	Yes	M.TW	102	85	68	Yes	¥.C	G7TC-OC08	U, C	
			Outputs	Relay outputs	NPN	16 (SPST- NO × 16)	5A	07.C	OM.T	182	Y	NW	N.1	00X.	G7TC-OC16	V		
	WW		Y.CC	M.I	PNP	16 (SPST- NO × 16)	WW.	100X	$co_{M}$	102		WV		100	G7TC-OC16-1	W_		
High-	MA	NPN	MMM-TOOX-COW	NPN	16 (SPDT×	10 A (Terminal	N.100	Y.COJ	LTW M.TV	<t< td=""><td></td><td>VIV</td><td>N.100</td><td>G70A-ZOC16-3 (Socket only) + Relay/SSR/ MOSFET Relay/</td><td>TW</td></t<>		VIV	N.100	G70A-ZOC16-3 (Socket only) + Relay/SSR/ MOSFET Relay/	TW			
capacity socket	G70A (Socke	et only)	Outputs	Relay outputs	M.T.V	16 possible with G2R	block	No	01-	234	75	64	Yes	NW.	Timer G70A-ZOC16-4	U, C, CE		
	W		V		V.100	Y.C	PNP	Relays)	current)	WW.	100X.	OM	TW		11	WW	(Socket only) + Relay/SSR/ MOSFET Relay/ Timer	M.)

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Note: For the combination of Input Units with I/O Relay Terminal and Connecting Cables, refer to 3. Connecting I/O Relay Terminals. WWW.100Y.CO. WWW.100Y.CO WWW.100Y.COM.TW

## **Mountable Racks**

	NJ s	system	CJ systen	n (CJ1, CJ2)	CP1H system	NSJ s	ystem
Model	CPU Rack	Expansion Rack	CPU Rack	Expansion Backplane	CP1H PLC	NSJ Controller	Expansion Backplane
CJ1W-ID201	100	COMP		M.100	OM		
CJ1W-ID211	MM	OY.CO TY	Y.C. TI	1007	MIN		
CJ1W-ID212	WW.10	COM		WWW	COM		
CJ1W-ID231	W	$00_{II}$	10 Units	W.100	Not supported	Not supported	10 Units (per Expansio Backplane)
CJ1W-ID232	10 Units	10 Units (per Expansion Rack)		10 Units (per Expansion			
CJ1W-ID233	TO OTHES			Backplane)			
CJ1W-ID261	W. A.	1001.		W 100	OW.	-7	
CJ1W-ID262		J. Co.		MM	JOY.Co		
CJ1W-IA201		W.100		TWW.	COM.	-CVI	
CJ1W-IA111		1007.		N. T.	100 1.		

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## **Specifications**

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

Na	O mainta DO branch Halla viella Tamaina de Disabi
Name Model	8-point DC Input Unit with Terminal Block
Rated Input Voltage	CJ1W-ID201 12 to 24 VDC
Rated Input Voltage Range	10.2 to 26.4 VDC
Input Impedance	2.4 kΩ
Input Current	10 mA typical (at 24 VDC)
ON Voltage/ON Current	8.8 VDC min./3 mA min.
OFF Voltage/OFF Current	3 VDC max./1 mA max.
ON Response Time	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
OFF Response Time Number of Circuits	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1 8 independent circuits
Number of Simultaneously ON Points	100% simultaneously ON
Insulation Resistance	20 MΩ between 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.
Internal Current Consumption	80 mA max.
Weight	110 g max.
Circuit Configuration	COM0   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 nector Signal name pin '2 name  CO AD B Jox Ch1_In00  CI AI B Jox Ch1_In01  C2 A2 B Jox Ch1_In02  C3 A3 B Jox Ch1_In03  Jox Ch1_In03  Jox Ch1_In05  C6 A6 B6 Jox Ch1_In05  C7 A7 B7 Jox Ch1_In05  C8 A6 B8 Jox Ch1_In05  C9 A6 B8 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In05  C9 A6 B6 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In05  C9 A6 B6 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In05  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In03  C9 A7 B7 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In03  C9 A8 B8 Jox Ch1_In03  C9 A8 B8 Jox Ch1_In03  C9 A8 B8 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In03  C9 A8 B8 Jox Ch1_In05  C9 A8 B8 Jox Ch1_In03  Jox Ch1_I

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

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

<sup>\*2.</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-ID211 DC Input Unit (24 VDC, 16 Points)

Name	16-point DC Input Unit with Terminal Block
Model	CJ1W-ID211
Rated Input Voltage	24 VDC
Rated Input Voltage Range	20.4 to 26.4 VDC
Input Impedance	3.3 kΩ
Input Current	7 mA typical (at 24 VDC)
ON Voltage/ON Current	14.4 VDC min./3 mA min.
OFF Voltage/OFF Current	5 VDC max./1 mA max.
ON Response Time	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
Number of Circuits	16 (16 points/common, 1 circuit)
Number of Simultaneously ON Points	100% simultaneously ON (at 24 VDC) (Refer to the following illustration.)
Insulation Resistance	20 MΩ between 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.
Internal Current Consumption	80 mA max.
Weight	110 g max.
Circuit Configuration	Jxx_Ch1_In15 1000 pF 1
· WW.10	The state of the s
	Signal Connector Signal name pin 2 name
	A0 B0 Jxx_Ch1_ln01
	$ \begin{array}{c c} \hline                                    $
	O O Jxx_Ch1_ln04 A2 D Jxx Ch1_ln05 D Jxx Ch1_ln05
	O D Jxx_Ch1_ln06 A3   Lyx_Ch1_ln07
External connection	Jxx Ch1 In08 A4
and terminal-device	DA JXX_Ch1_In09 — T
variable diagram	
	Jxx_Ch1_ln12 Ac 3
	Do Jxx_Ch1_ln13 — i
	COM AB
	B8 COM

• Polarity of the input power supply can be connected in either direction. The signal names of the terminals are the device variable names.

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

The ON response time will be 20 µs maximum and OFF response time will be 400 µs maximum even if the response time are set to 0 ms due

to internal element delays.

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

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

Name	16-point DC Input Unit with Terminal Block
Model	CJ1W-ID212
Rated Input Voltage	24 VDC
Rated Input Voltage Range	20.4 to 26.4 VDC
Input Impedance	3.3 kΩ
Input Current	7 mA typical (at 24 VDC)
ON Voltage/ON Current	14.4 VDC min./3 mA min.
OFF Voltage/OFF Current	5 VDC max./1 mA max.
ON Response Time	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
Number of Circuits	16 (16 points/common, 1 circuit)
Number of Simultaneously ON Points	100% simultaneously ON (at 24 VDC) (Refer to the following illustration.)
Insulation Resistance	20 MΩ between 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.
Internal Current Consumption	130 mA max.
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.
- WW.10	17 - 100 M M M M M M M M M M M M M M M M M M
	Signal Connector Signal name pin 12 name
	OOX. COMITAL MALLOON CONTINUE CONTINUE CONTI
	Jxx_Ch1_ln00 A0
	O Jxx_Ch1_ln00 A0 B0 Jxx_Ch1_ln01 O O
	O Jxx_Ch1_ln02 A1 B0 Jxx_Ch1_ln01 O Jxx Ch1 ln03 Dxx Ch1 ln03
	O Jxx_Ch1_ln02 A1 B0 Jxx_Ch1_ln03 O Jxx_Ch1_ln03
	O Jxx_Ch1_ln02 A1 B0 Jxx_Ch1_ln03 O Jxx_Ch1_ln03 O Jxx_Ch1_ln05 O Jxx_Ch1_ln05 O D
	Dyx_Ch1_ln02 A1 B0 Dyx_Ch1_ln03 Dyx_Ch1_ln03 Dyx_Ch1_ln05 Dyx_Ch1_ln05 Dyx_Ch1_ln05 Dyx_Ch1_ln05 Dyx_Ch1_ln07 Dyx_Ch1_ln08
External connection	Data
and terminal-device	Data
	Data
and terminal-device	Dyx_Ch1_ln02 A1 B0 Dyx_Ch1_ln03 Dyx_Ch1_ln03 Dyx_Ch1_ln03 Dyx_Ch1_ln04 A2 B2 Dyx_Ch1_ln05 Dyx_Ch1_ln08 A3 B3 Dyx_Ch1_ln07 Dyx_Ch1_ln08 A4 B4 Dyx_Ch1_ln09 Dyx_Ch1

- Polarity of the input power supply can be connected in either direction.

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

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

сом А8

B7

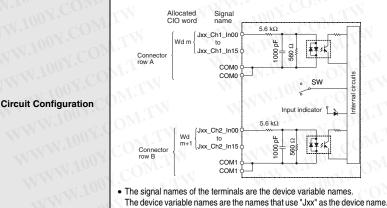
The ON response time will be 15 µs maximum and OFF response time will be 90 µs maximum even if the response time are set to 0 ms due to internal element delays.

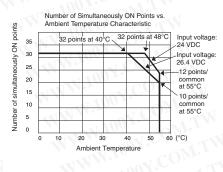
\*2. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on

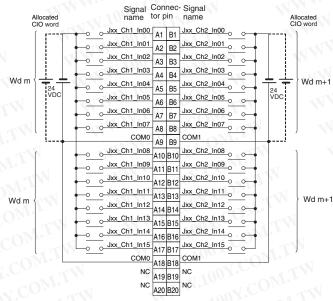
the Units.

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

Name	32-point DC Input Unit with Fujitsu Connector
Model	CJ1W-ID231
Rated Input Voltage	24 VDC
Rated Input Voltage Range	20.4 to 26.4 VDC
Input Impedance	5.6 kΩ
Input Current	4.1 mA typical (at 24 VDC)
ON Voltage/ON Current	19.0 VDC min./3 mA min.
OFF Voltage/OFF Current	5 VDC max./1 mA max.
ON Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
Number of Circuits	32 (16 points/common, 2 circuits)
Number of Simultaneously ON Points	75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.)
Insulation Resistance	20 M $\Omega$ between 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.
Internal Current Consumption	90 mA max.
Weight	70 g max.
Accessories	None None
N.Tra. COM.	Allocated Signal







- **External connection** and terminal-device variable diagram
- The input power polarity can be connected in either direction.
  Be sure to wire both pins A9 and A18 (COM0), and set the same polarity for both pins.
- Be sure to wire both pins B9 and B18 (COM1), and set the same polarity for both pins.

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

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

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

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

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

Name	32-point DC Input Unit with MIL Connector
Model	CJ1W-ID232
Rated Input Voltage	24 VDC
Rated Input Voltage Range	20.4 to 26.4 VDC
nput Impedance	5.6 kΩ
nput Current	4.1 mA typical (at 24 VDC)
ON Voltage/ON Current	19.0 VDC min./3 mA min.
OFF Voltage/OFF Current	5 VDC max./1 mA max.
ON Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
Number of Circuits	32 (16 points/common, 2 circuits)
Number of Simultaneously ON Points	75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.)
nsulation Resistance	20 MΩ between 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.
nternal Current Consumption	90 mA max.
Weight	70 g max.
Accessories	None
Circuit Configuration	Connector row A  Connector row B  Connec
WWW.100	Allocated Signal Connector pin name CIO word CIO word
	24 VDC
	NC 1 2 NC
	COM1 3 4 COM1 3 4 Jxx_Ch2_ln15
	1 010 144 5 0 1 010 100
	0 0 JXX_Ch2_ln13 9 10 JXX_Ch2_ln05 0 0
	== Jxx Ch2 In12 Jxx Ch2 In04 ==
	Wd m+1 \ \ \frac{\circ \text{ or } \frac{\text{ dx. Cli2_mit2}}{\circ \text{ or } \frac{\text{ dx. Cli2_mit04}}{\circ \circ \text{ dx. Cli2_mit04}} \circ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	O O JXX Ch2 In09 17/18 JXX Ch2 In01 O O
External connection	NC 21 22 NC 2040
and terminal-device	COM0 23 24 COM0
variable diagram	Jyy Ch1 In14 Jyy Ch1 In06
	27 28 30.2511_1100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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

24 VDC

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

□ Jxx\_Ch1\_In11 33 34 Jxx\_Ch1\_In02 □ Jxx\_Ch1\_In02 □ Jxx\_Ch1\_In02 □ Jxx\_Ch1\_ln09 37 38 Jxx\_Ch1\_ln01

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

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

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

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

Name	32-point DC Input Unit with MIL Connector
Model	CJ1W-ID233
Rated Input Voltage	24 VDC
Rated Input Voltage Range	20.4 to 26.4 VDC
nput Impedance	$5.6 \mathrm{k}\Omega$
nput Current	4.1 mA typical (at 24 VDC)
ON Voltage/ON Current	19.0 VDC min./3 mA min.
OFF Voltage/OFF Current	5 VDC max./1 mA max.
ON Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
OFF Response Time	8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *
Number of Circuits	32 (16 points/common, 2 circuits)
Number of Simultaneously ON Points	75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.)
Insulation Resistance	20 MΩ between 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.
Internal Current Consumption	200 mA max.
Weight	70 g max.
Accessories	None None
Circuit Configuration	Connector row A  Como Como Como Como Como Como Como Com
M.M. 100	Allocated Signal Connec- Signal Allocated
	CIO word name tor pin name CIO word
	Maria
	COM1 3 4 COM1
	3 4 5 5 6 Jxx_Ch2_In07 0 0
	0 Jxx_Ch2_In14 7 8 Jxx_Ch2_In06 0 0
	o o Jxx Ch2 In13 9 10 Jxx Ch2 In05 o o
	Wd m+1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	→ ○ <u>Jxx_Ch2_In11</u> 13 14 <u>Jxx_Ch2_In03</u> ○ → hyc. Ch2_In03
	○ ○ JXX_Ch2_In10 15 16 JXX_Ch2_In02 ○ ○ ○ ○ ○ JXX_Ch2_In09 17 18 JXX_Ch2_In01 —
	1 200 100 11 10 10 10 10 10 10 10 10 10 10
	NC 2122 NC
External connection and terminal-device	COM0 23/24 COM0
and terminal-device	(

and terminal-device variable diagram

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

24 VDC

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

5 25 26 Jxx\_Ch1\_ln07

o Jxx\_Ch1\_ln14 27 28 Jxx\_Ch1\_ln06 o Jxx\_Ch1\_ln13 29 30 Jxx\_Ch1\_ln05 \_ 5 Jxx\_Ch1\_ln12 31 32 Jxx\_Ch1\_ln04 5

<u>Jxx\_Ch1\_In11</u> 33 34 Jxx\_Ch1\_In03 ○ o Jxx\_Ch1\_ln09 37 38 Jxx\_Ch1\_ln01 o

o Jxx\_Ch1\_ln08 39 40 Jxx\_Ch1\_ln00 o

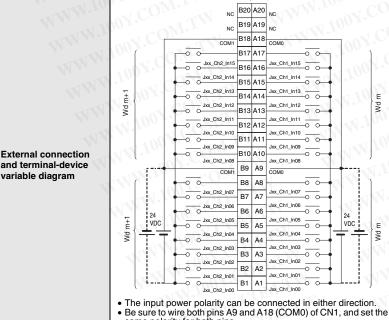
**Note:** Observe the following restrictions when connecting to a 2-wire sensor.

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

Wd m

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

#### CJ1W-ID261 DC Input Unit (24 VDC, 64 Points) 64-point DC Input Unit with Fujitsu Connector Name Model CJ1W-ID261 24 VDC Rated Input Voltage 20.4 to 26.4 VDC Rated Input Voltage Range Input Impedance $5.6 \,\mathrm{k}\Omega$ Input Current 4.1 mA typical (at 24 VDC) **ON Voltage/ON Current** 19.0 VDC min./3 mA min. OFF Voltage/OFF Current 5 VDC max./1 mA max. **ON Response Time** 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) **OFF Response Time** 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) \* Number of Circuits 64 (16 points/common, 4 circuits) Number of Simultaneously 50% (16 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustrations.) **ON Points** 20 M $\Omega$ between external terminals and the GR terminal (100 VDC) Insulation Resistance 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. **Dielectric Strength** Internal Current 90 mA max Consumption 110 g max. Weight Accessories None Number of Simultaneously ON Points vs Ambient Temperature Characteristic Jxx\_Ch1\_ln00 70 CN. S 60 Input voltage 20.4 VDC Wd | Jxx\_Ch2\_In00 m+1 | Jxx\_Ch2\_In15 SW 50 12 points/common nput vo COM1 40 (total: 45 points) at 55°C **Circuit Configuration** 5.6 kΩ 30 8 points/common at 55°C Wd Jxx\_Ch3\_In00 Input voltag 26.4 VDC 20 m+2 Jxx Ch3 In15 10 COM2 COM2 CN2 Jxx Ch4 In00 Ambient Temperature • The signal names of the terminals are the device variable names The device variable names are the names that use "Jxx" as the device name CN1 CN2 Signal name Allocated CIO word Signal name Allocated CIO word B20 A20 A1 B1 B19 A19 A2 B2 B18 A18 A3 B3 A4



COM2 A18 B18 NC A19 B19 NC A20 B20

A5 B5

A6 B6

A7 B7

A8 В8

Α9 B9

A10 B10

A12 B12

A13 B13

A14 B14

A15 B15

A16 B16

A17 B17

- The input power polarity can be connected in either direction.
   Be sure to wire both pins A9 and A18 (COM2) of CN2, and set the same polarity for both pins
- Be sure to wire both pins B9 and B18 (COM3) of CN2, and set the same polarity for both pins.
  The signal names of the terminals are the device variable names.
- The device variable names are the names that use "Jxx" as the device name.
- The ON response time will be 120 µs maximum and OFF response time will be 400 µs maximum even if the response times are set to 0 ms due to internal element delays.

Wd

Wdm+2

VDC

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

same polarity for both pins

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

Be sure to wire both pins B9 and B18 (COM1) of CN1, and set the

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

same polarity for both pins.
The signal names of the terminals are the device variable names.

24 VDC

#### CJ1W-ID262 DC Input Unit (24 VDC, 64 Points) 64-point DC Input Unit with MIL Connector Name Model CJ1W-ID262 Rated Input Voltage 24 VDC Rated Input Voltage 20.4 to 26.4 VDC Range Input Impedance Input Current 4.1 mA typical (at 24 VDC) ON Voltage/ON Current 19.0 VDC min./3 mA min. OFF Voltage/OFF Current 5 VDC max./1 mA max. **ON Response Time** 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) **OFF Response Time** 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) **Number of Circuits** 64 (16 points/common, 4 circuits) Number of Simultaneously 50% (8 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustrations.) **ON Points** Insulation Resistance 20 M $\Omega$ between external terminals and the GR terminal (100 VDC) 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. **Dielectric Strength Internal Current** 90 mA max. Consumption Weight 110 g max. Accessories None Jxx\_Ch1\_In00 Number of Simultaneously ON Points vs. Ambient Temperature Characteristic 20 Ω Jxx Ch1 nts at 35°C, 64 points at 47°C Jxx Ch2 In00 60 neously ON Jxx\_Ch2 In15 50 Input indicator 2 12 points/commor (total: 45 points) at 55°C COM1 40 Circuit Configuration 30 Input volta 26.4 VDC 8 points/common at 55°C 20 8 points/common 10 (total: 26 points max.) at 55°C Jxx\_Ch4\_In00 Wd m+3 Jxx\_Ch4\_In15 Ambient Temperature 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. CN<sub>2</sub> Allocated CIO word Signal name Signal Signal Allocated CIO word name 24 VDC OJXX\_Ch1\_In00 40 39 JXX\_Ch1\_In08 O NC 1 2 сома 3 4 38 37 36 35 5 6 E Jxx\_Ch1\_In00 Jxx\_Ch1\_ln11 8 34 33 7 ρM O Jxx\_Ch4\_ln13 32 31 9 10 m+3 Jxx\_Ch1\_ln13\_O 30 29 11 12 Jxx\_Ch4\_In11 Jxx\_Ch1\_ln14\_O Wd 28 27 13 14 Jxx\_Ch4\_In10 Jxx\_Ch1\_ln07 Jxx\_Ch1\_ln15 15 16 26 25 Jxx\_Ch4\_ln09 24 23 17 18 22 21 19 20 NC **External connection** Jxx\_Ch2\_ln08 20 19 21 22 and terminal-device COM2 18 17 23 24 variable diagram Jxx\_Ch3\_ln15 25 26 16 15 m+1 14 13 27 28 Wd Jxx\_Ch3\_In13 xx\_Ch2\_ln12 Md 12 11 29 30 Wd m+2 Jxx\_Ch2\_ln13\_O 10 9 31 32 Jxx\_Ch3\_ln11 lxx\_Ch2\_ln14\_O 8 7 33 34 Jxx\_Ch2\_In07 Jxx\_Ch2\_In15\_C 6 5 35 36 24 VDC 4 3 37 38 2 1 39 40 • The input power polarity can be connected in either direction. • The input power polarity can be connected in either direction. • Be sure to wire both pins 23 and 24 (COM0) of CN1, and set the • Be sure to wire both pins 23 and 24 (COM2) of CN2, and set the same polarity for both pins. same polarity for both pins. • Be sure to wire both pins 3 and 4 (COM1) of CN1, and set the Be sure to wire both pins 3 and 4 (COM3) of CN2, and set the same polarity for both pins. The signal names of the terminals are the device variable names. same polarity for both pins. The signal names of the terminals are the device variable names.

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

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

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

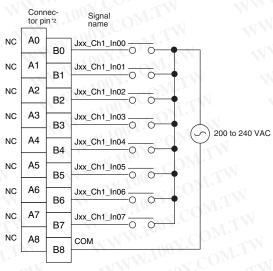
The device variable names are the names that use "Jxx" as the device name.

 $<sup>^*</sup>$  The ON response time will be 120  $\mu$ s maximum and OFF response time will be 400  $\mu$ s maximum even if the response times are set to 0 ms due to internal element delays.

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

Name	8-point AC Input Unit with Terminal Block			
Model	CJ1W-IA201			
Rated Input Voltage	200 to 240 VAC 50/60 Hz			
Rated Input Voltage Range	170 to 264 VAC			
Input Impedance	21 kΩ (50 Hz), 18 kΩ (60 Hz)			
Input Current	9 mA typical (at 200 VAC, 50 Hz), 11 mA typical (at 200 VAC, 60 Hz)			
ON Voltage/ON Current	120 VAC min./4 mA min.			
OFF Voltage/OFF Current	40 VAC max./2 mA max.			
ON Response Time	18.0 ms max. (default setting: 8 ms) *1			
OFF Response Time	48.0 ms max. (default setting: 8 ms) *1			
Number of Circuits	8 (8 points/common, 1 circuit)			
Number of Simultaneously ON Points	100% (8 points/common) simultaneously ON			
Insulation Resistance	20 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	80 mA max.			
Weight	130 g max.			
Accessories	None			
Circuit Configuration	Signal name    Input indicator   Section   Se			
WWW.TO WWW.TO	Connector pin 2 Signal name  NC A0 B0 Jxx_Ch1_In00			

External connection and terminal-device variable diagram



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

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

<sup>\*1.</sup> Can be set to 0 ms, 0.5 ms, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, or 32ms in the settings. When the response times have been set to 0 ms, the ON response time will be 10 ms maximum and the OFF response time will be 40 ms maximum due to internal element delays.

<sup>\*2.</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-IA111 AC Input Unit (100 VAC, 16 points)

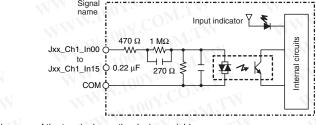
Circuit Layout

**External connection** 

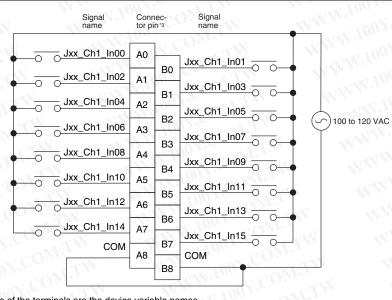
and terminal-device

variable diagram

Name	16-point AC Input Unit with Terminal Block		
Model	CJ1W-IA111		
Rated input voltage	100 to 120 VAC 50/60 Hz *2		
Rated Input Voltage Range	35 to 132 VAC		
Input Impedance	4.5 kΩ (50 Hz), 12 kΩ (60 Hz)		
Input Current	7 mA typical (at 100 VAC, 50 Hz), 3 mA typical (at 100 VAC, 60 Hz)		
ON Voltage/ON Current	70 VAC min./4 mA min		
OFF Voltage/OFF Current	20 VAC max./2 mA max		
ON Response Time	8 ms max. (default setting: 8 ms) *1		
OFF Response Time	48 ms max. (default setting: 8 ms) *1		
Number of Circuits	16 (16 points/common, 1 circuit)		
Number of Inputs ON Simultaneously	100% simultaneously ON (16 points/common)		
Insulation Resistance	20 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 max.		
Weight	130 g max.		
Accessories	None		



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



- The signal names of the terminals are the device variable names.
   The device variable names are the names that use "Jxx" as the device name.
- \*1. Can be set to 0 ms, 0.5 ms, 1 ms, 2 ms, 4 ms, 8 ms, 16 ms, or 32ms in the settings. When the response times have been set to 0 ms, the ON response time will be 10 ms maximum and the OFF response time will be 40 ms maximum due to internal element delays.
- \*2. Use an input voltage of 90 VAC or higher when connecting 2-wire sensors.
- \*3. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

## Bit Allocations for Input Unit

## **8-point Input Unit**

	Alloca	Signal name (CJ/NJ)	
	CIO	Bit	Signal name (CJ/NJ)
.01	1.1.4	00	IN0/Jxx_Ch1_In00
		01	IN1/Jxx_Ch1_In01
		W. To	COMP
		06	IN6/Jxx_Ch1_In06
	Wd m	07	IN7/Jxx_Ch1_In07
	(Input)	08	CONF
		09	001.
			. ON CO
		14	The CGM.
1001	Y.Co. TV	15	1100 y M.T
32	2-point Input U	nit\	

## **16-point Input Unit**

EW.100Y.COM.TW

Bit	Signal name (CJ/NJ)
00	IN0/Jxx_Ch1_In00
01	IN1/Jxx_Ch1_In01
TW	:
14	IN14/Jxx_Ch1_In14
15	IN15/Jxx_Ch1_In15
	14

#### 32-point Input Unit

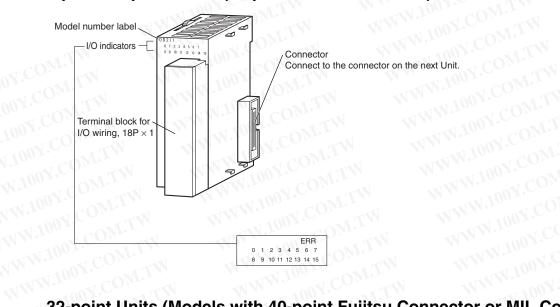
Allocated	I CIO word	Gi(O.1/N.1)
CIO	Bit	Signal name (CJ/NJ)
M.Co.	00	IN0/Jxx_Ch1_In00
COM	01	IN1/Jxx_Ch1_In01
Wd m (Input)	$\mathcal{I}_{AA}$ : $A_A$	100 .
(input)	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15
1007.	00	IN0/Jxx_Ch2_In00
OV.CI	01	IN1/Jxx_Ch2_In01
Wd m+1 (Input)	OM.	TANIN TO
(pat)	14	IN14/Jxx_Ch2_In14
	15	IN15/Jxx_Ch2_In15

# M.100X.COW.TW

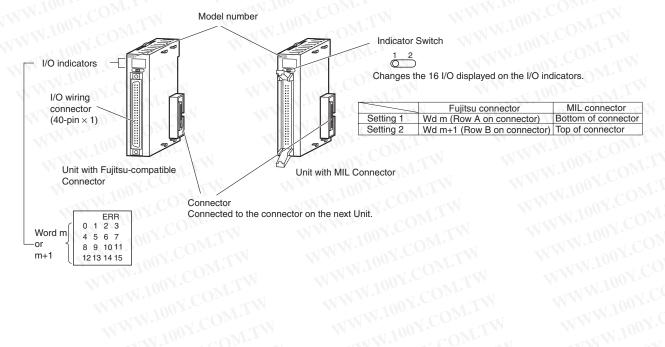
Allocated CIO word		Signal name (CJ/NJ
CIO	Bit	olgilai flame (00/140
	00	IN0/Jxx_Ch1_In00
Wd m (Input)	01	IN1/Jxx_Ch1_In01
	M. M. June COM	1.1
	14	IN14/Jxx_Ch1_In14
TX XX	15	IN15/Jxx_Ch1_In15
	00	IN0/Jxx_Ch2_In00
TTV	01	IN1/Jxx_Ch2_In01
Wd m+1 (Input)	WWW.	ON
()	14	IN14/Jxx_Ch2_In14
WT	15	IN15/Jxx_Ch2_In15
	00	IN0/Jxx_Ch3_In00
om Till	01	IN1/Jxx_Ch3_In01
Wd m+2 (Input)	MM. TOO	Y.Co :TV
COMPAN	14	IN14/Jxx_Ch3_In14
TIME	15	IN15/Jxx_Ch3_In15
	00	IN0/Jxx_Ch4_In00
COM	01	IN1/Jxx_Ch4_In01
Wd m+3 (Input)	The same of the sa	1001 : M.T
COM	14	IN14/Jxx_Ch4_In14
	15	IN15/Jxx_Ch4_In15

## **External Interface**

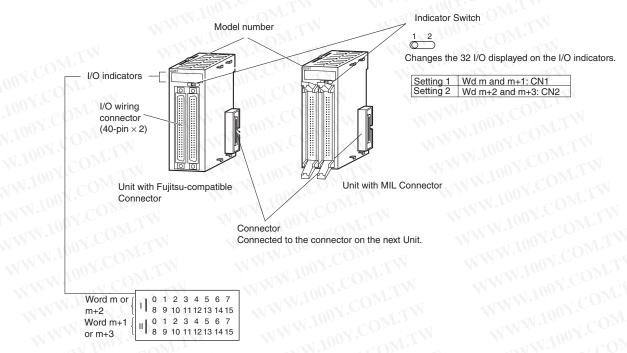
## 8-point/16-point Units (18-point Terminal Blocks)



# WWW.100Y.COM.TW 32-point Units (Models with 40-point Fujitsu Connector or MIL Connector)



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



## Wiring Basic I/O Units with Terminal Blocks

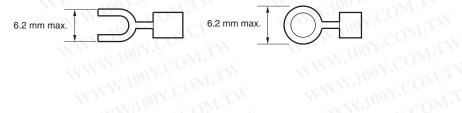
#### **Electric Wires**

The following wire gauges are recommended.

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

#### **Crimp terminals**

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

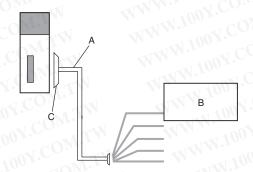


## I/O Unit Wiring Methods

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

#### 1. User-provided Cable

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

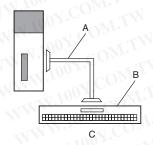


Α	User-provided cable
В	External device
C	Connector
- 1	

#### 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.

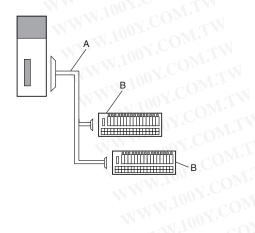


A	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
В	Connector-Terminal Block Conversion Unit XW2□
C	Conversion to a screw terminal block

## 3. I/O Relay Terminal

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

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



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

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

Model	100x. CM:1	Specifications	Pins
CJ1W-ID231	Input Unit, 24 VDC, 32 inputs	WW. 100X.CO. T.TW	40
CJ1W-ID261	Input Unit, 24 VDC, 64 inputs	LINN. TO COMP	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-ID232 CJ1W-ID233	Input Unit, 24 VDC, 32 inputs	W.100Y. 40 (TY)
CJ1W-ID262	Input Unit, 24 VDC, 64 inputs	100X.C

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

Connection	ction Pins OMRON set		DDK parts		
Pressure-welded	ure-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 mm<sup>2</sup> to 0.08 mm<sup>2</sup>). Use cable with external wire diameters of 1.61 mm

## **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 WY
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)

Produc			Model	
Crimping Tool	CON CONTRACT	XY2B-0002		M.M. 1007.
Attachment	N.Ing. COM.	XY2B-1007	COMP	MW.E

## 2. Connecting Connector-Terminal Block Conversion Units

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

Pattern	Configuration	Number of connectors	Branching
	Connecting Cable  Connector-Terminal Block Conversion Unit  40 or 60 terminals	N TW I.TW II.TW	None
COM.TW COM.TW N.COM.TW OV.COM.TW OOY.COM.TW	Connecting Cable with two branches  Connector-Terminal Block Conversion Unit  20 terminals 20 terminals	M.TW OM.TW COM.TW COM.TW	2 branches
100X.COM 1.100X.COM W.100X.COM W.100X.COM	Connecting Cable  Connector-Terminal Block Conversion Unit  40 or 60 terminals  40 or 60 terminals	M.100X.COM.1	None
MMM.1007. MMM.1007. MMM.1007.	Connecting Cable with two branches  Connector-Terminal Block Conversion Unit  20 terminals 20 terminals 20 terminals	M.M.M.100X.C.	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	
	MM	OUX.	WTIL	Α	None	XW2Z-□□□B	XW2D-40G6	None	
	TINN.	TO ST C	)Mr.	Α	None	XW2Z-□□□B	XW2D-40G6-RF *2	None	
	11	M. 100X.	OM.T.	Α	None	XW2Z-□□□B	XW2B-40G5	None	
	WWW		171	Α	None	XW2Z-□□□B	XW2B-40G4	None	
	TIN		N. Tuo	$COM^{-1}$	Α	None	XW2Z-□□□BU	XW2D-40C6	None
			· OM.	В	2	XW2Z-□□□D	XW2D-20G6 (2 Units)	None	
J1W-ID231	32 inputs	1 Fujitsu connector	NPN/PNP	В	2	XW2Z-□□□D	XW2B-20G5 (2 Units)	None	
	WW	NWW.10	TOX.COM	В	2	XW2Z-□□□D	XW2B-20G4 (2 Units)	None	
				В	2	XW2Z-□□□D	XW2C-20G6-IO16 (2 Units)	Yes	
	<b>*</b>			В	2	XW2Z-□□□D	XW2C-20G5-IN16 (2 Units) *1	Yes	
				В	2	XW2Z-□□□D	XW2E-20G5-IN16 (2 Units) *1	Yes	
				В	2	XW2Z-□□□D	XW2F-20G7-IN16 (2 Units) *1	Yes	
		- TWW.	C C	В	2	XW2Z-□□□D	XW2N-20G8-IN16 (2 Units) *1	Yes	

			1	WV	WW.100Y	CON.TW	CJ1	W-ID/I	
Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	Connector-Terminal Block Conversion Unit	Common	
	-1111	1.10	Ohr	A	None	XW2Z-□□□K	XW2D-40G6	None	
	Al a.	-11 100 X.	T.Mo.	Α	None	XW2Z-□□□K	XW2D-40G6-RM *2	None	
	WW	W 007	COM	Α	None	XW2Z-□□□K	XW2B-40G5	None	
		VIW.100	COM.	Α	None	XW2Z-□□□K	XW2B-40G4	None	
	W.	100	Y.COM	В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None	
HW IDOO		1 MIL		В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None	
J1W-ID232	32 inputs	connector	NPN/PNP	В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None	
	4		10 X . C .	В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes	
	· XI		ow CC	В	2	XW2Z-□□□N	XW2C-20G5-IN16 (2 Units) *1	Yes	
	N.		1001.	В	2	XW2Z-□□□N	XW2E-20G5-IN16 (2 Units) *1	Yes	
	TW		JONY.C	В	2	XW2Z-□□□N	XW2F-20G7-IN16 (2 Units) *1	Yes	
	-31		1.100	В	2	XW2Z-□□□N	XW2N-20G8-IN16 (2 Units) *1	Yes	
	17/		100 x	A	None	XW2Z-□□□K	XW2D-40G6	None	
	TW	WW	W	Α	None	XW2Z-□□□K	XW2D-40G6-RM *2	None	
	1.7		M.Joo.	A	None	XW2Z-□□□K	XW2B-40G5	None	
	OM.TW W	32 inputs 1 MIL connector		100	Α	None	XW2Z-□□□K	XW2B-40G4	None
				В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None	
	$OM_{II}$		- VV.1	B	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None	
1W-ID233	32 inputs		NPN/PNP	В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None	
	COMP	N	WW.	В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes	
100 J.			В	2	XW2Z-□□□N	XW2C-20G5-IN16 (2 Units) *1	Yes		
	1007 .COM.TW	W	MM	В	2	XW2Z-□□□N	XW2E-20G5-IN16 (2 Units) *1	Yes	
				В	2	XW2Z-□□□N	XW2F-20G7-IN16 (2 Units) *1	Yes	
	Y.O.	IN	1111	В	2	XW2Z-□□□N	XW2N-20G8-IN16 (2 Units) *1	Yes	
11100	V.Co.	TW.	11/1/	D 1007.	None	XW2Z-□□□B	XW2D-40G6	None	
	COL	1.1		D	None	XW2Z-□□□B	XW2D-40G6-RF *2	None	
	001.	TIN	1/1	D-100	None	XW2Z-□□□B	XW2B-40G5	None	
	T.CO	TVN	17	D	None	XW2Z-□□□B	XW2B-40G4	None	
	100	M.T.		D	None	XW2Z-□□□BU	XW2D-40C6	None	
	-100 Y.C	WT I	4	F 3110	2	XW2Z-□□□D	XW2D-20G6 (2 Units)	None	
1W-ID261	64 inputs	2 Fujitsu	NPN/PNP	F	2	XW2Z-DDD	XW2B-20G5 (2 Units)	None	
	3 i inputo	connectors		F. W	2	XW2Z-DDD	XW2B-20G4 (2 Units)	None	
	Your	U T		F	2	XW2Z-DDD	XW2C-20G6-IO16 (2 Units)	Yes	
	Mil	$^{1}$ CO $_{Mr}$ .		F	2	XW2Z-DDD	XW2C-20G5-IN16 (2 Units) *1	Yes	
	100	Mo	1.4	F	2	XW2Z-DDD	XW2E-20G5-IN16 (2 Units) *1	Yes	
	M. M.	N.Co.	WT	F	2	XW2Z-DDD	XW2F-20G5-IN16 (2 Units) *1	Yes	
	WW.10	TON		F	2	XW2Z-00D	XW2N-20G8-IN16 (2 Units) *1	Yes	
	N Y - 11	107.0	M.F.W	D	None	XW2Z-DDK	XW2N-20G8-INTO (2 OTIRS) T	None	
	MAN.	ONY.CU	W	D	None	XW2Z-UUK	XW2D-40G6 XW2D-40G6-RM *2	None	
	Wix	100,	Mi	D	None	XW2Z-UUK	XW2B-40G5	None	
	MM	100 Y.C.	WILM	D	None	XW2Z-UUK	XW2B-40G5 XW2B-40G4	None	
		O.V.C	Ohr	F	2	XW2Z-UUN	XW2D-40G4 XW2D-20G6 (2 Units)	None	
	NV V	$\alpha \gamma_{00}$	OMIL	F	2	XW2Z-UUN XW2Z-UUN	XW2D-20G6 (2 Units) XW2B-20G5 (2 Units)		
1W-ID262	64 inputs	2 MIL connectors	NPN/PNP	F	2	AN > 1		None	
	- 11	301001010	COMr.	F	2	XW2Z-□□N	XW2B-20G4 (2 Units)	None	
		100	Moo	F		XW2Z-□□N	XW2C-20G6-IO16 (2 Units)	Yes	
	W	M. M.	Y.Co.	E	2	XW2Z-DDDN	XW2C-20G5-IN16 (2 Units) *1	Yes	
		M.In.	TOD	For	2	XW2Z-DDDN	XW2E-20G5-IN16 (2 Units) *1	Yes	
		N Y	101.		2	XW2Z-DDN	XW2F-20G7-IN16 (2 Units) *1	Yes	
		-11N W.	L J CU	F	2	XW2Z-□□□N	XW2N-20G8-IN16 (2 Units) *1	Yes	

WWW.100Y.COM. \*1. The inputs are NPN. For PNP inputs, reverse the polarity of the external power supply connections to the power supply terminals on the Connector-Terminal Block Conversion Unit. WWW.100Y.COM. WWW.100Y.COM.

<sup>\*2.</sup> Bleeder resistance (5.6 k $\Omega$ ) is built in. WWW.100Y.COM.TW

#### **Types of Connecting Cables**

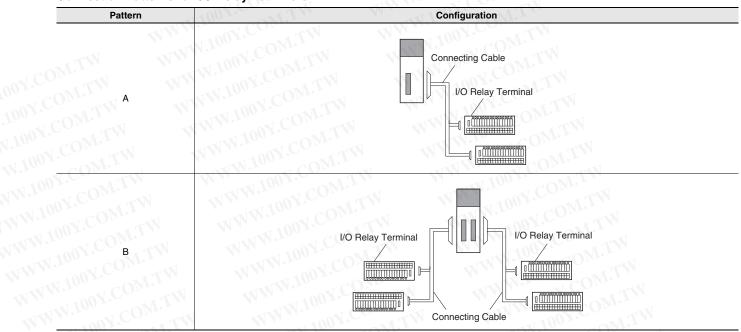
Cable lenght	XW2Z-□□A	XW2Z-□□B	XW2Z-□□BU	XW2Z-□□D	XW2Z-□□L	XW2Z-□□
0.25m	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.CoW	1 1	- NOV 1	<u> </u>	_
0.5m	XW2Z-050A	XW2Z-050B	XW2Z-050BU	71 COM.	-	XW2Z-C50X
1.0m	XW2Z-100A	XW2Z-100B	XW2Z-100BU	XW2Z-100D	XW2Z-100L	XW2Z-100X
1.5m	XW2Z-150A	XW2Z-150B	XW2Z-150BU	XW2Z-150D	XW2Z-150L	_
2.0m	XW2Z-200A	XW2Z-200B	XW2Z-200BU	XW2Z-200D	XW2Z-200L	XW2Z-200X
3.0m	XW2Z-300A	XW2Z-300B	XW2Z-300BU	XW2Z-300D	XW2Z-300L	XW2Z-300X
5.0m	XW2Z-500A	XW2Z-500B	XW2Z-500BU	XW2Z-500D	XW2Z-500L	XW2Z-500X
10.0m	XW2Z-010A	XW2Z-010B	-	XW2Z-010D	XW2Z-010L	XW2Z-010X
15.0m	XW2Z-15MA	XW2Z-15MB	1 - W	XW2Z-15MD	XW2Z-15ML	_
20.0m	XW2Z-20MA	XW2Z-20MB		XW2Z-20MD	XW2Z-20ML	_

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COM.TW

## 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

Model	I/O points	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	I/O Relay Terminal
C HW IDood	20 inputs	1 Fujitsu	NIDNI	A COM	2	G79-I□C-□	G7TC-ID16
CJ1W-ID231	32 inputs	connector	NPN	Α	2	G79-I□C-□	G7TC-IA16
O HAW IDOOO	00 : 1-	4 140	NIDNI	Α	2	G79-O□-□-D1	G7TC-ID16
CJ1W-ID232	32 inputs	1 MIL connector	NPN	Α	2	G79-O□-□-D1	G7TC-IA16
O HAW IDOOO	00 in	4.040	NIDNI	Α	2	G79-O□-□-D1	G7TC-ID16
CJ1W-ID233	32 inputs	1 MIL connector	NPN	A	2	G79-O□-□-D1	G7TC-IA16
O HAM IDOOR	N 100 L	2 Fujitsu	NDN	В	2	G79-I□C-□	G7TC-ID16
CJ1W-ID261	64 inputs	connectors	NPN	В	2	G79-I□C-□	G7TC-IA16
O HAM IDOGO	No. of C	2 MIL	NDN W	В	2	G79-O□-□-D1	G7TC-ID16
CJ1W-ID262	64 inputs	connectors	NPN	В	2	G79-O□-□-D1	G7TC-IA16

#### Types of Connecting Cables

Cable lenght	G79-□C	G79-I□C	G79-I□C-□	G79-O□C	G79-0□C-□	G79-O□-□-D1
0.25m	- OOT	G79-I25C	41.11	G79-O25C	3// 1	1007.
0.5m	71/1/2/00	G79-I50C	-XIV	G79-O50C	WIN- UN	G79-O50-25-D1
1.0m	G79-100C		G79-I100C-75	IGA . CONT.	G79-O100C-75	G79-O75-50-D1
1.5m	G79-150C	V.CO -TW	G79-I150C-125	1007.0-	G79-O150C-125	1007
2.0m	G79-200C	CONT	G79-I200C-175	GOM.	G79-O200C-175	1777 - 5V.C
3.0m	G79-300C	10 1. O. T. I.	G79-I300C-275	1100 - OM	G79-O300C-275	11 Jun 2
5.0m	G79-500C	-1 CU112	G79-I500C-475		G79-O500C-475	V V

Dimensions (Unit: mm)

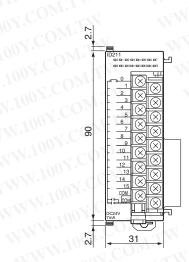
## 8-point/16-point Units (18-point Terminal Blocks)

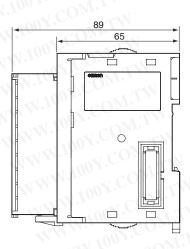
CJ1W-ID201 CJ1W-ID211 CJ1W-ID212

CJ1W-IA201

CJ1W-IA111



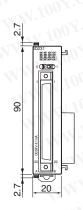


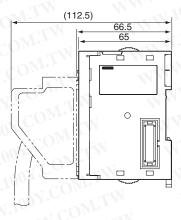


## 32-point Units (Input Units)

With Fujitsu-compatible Connector (40-pin  $\times$  1) CJ1W-ID231

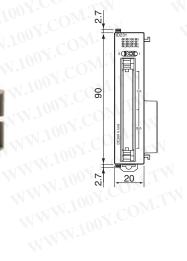


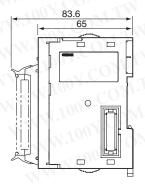




With MIL Connector (40-pin  $\times$  1) CJ1W-ID232 CJ1W-ID233



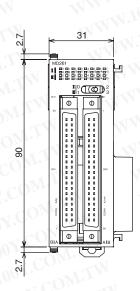


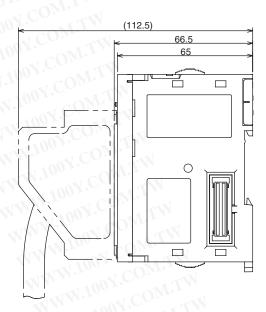


## **64-point Units (Input Units)**

With Fujitsu-compatible Connector (40-pin × 2) CJ1W-ID261

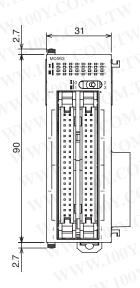


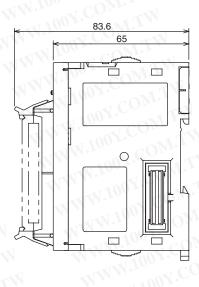




With MIL Connector (40-pin  $\times$  2) CJ1W-ID262







## **Related Manuals**

Name	Cat. No.	Contents
CJ-series CJ2 CPU Unit Hardware User's Manual CJ2H-CPU6□-EIP CJ2H-CPU6□ CJ2M-CPU□□	W472	Describes the following for CJ2 CPU Units:  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 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).
		OMRON

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2011.12

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