## **CJ-series Input Units**

# CJ1W-ID/IA

## 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-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**

11	Product		Specifications						Model	Standards
Unit type	name	I/O points	Input voltage and current	Commons	External connection	No. of words allocated	5 V	24 V	Wodel	Standards
		8 inputs	12 to 24 VDC, 10 mA	Independent contacts	Removable terminal block	1 word	0.09	_	CJ1W-ID201	UC1, N, L,
	DC Input Units	16 inputs	24 VDC, 7 mA	16 points, 1 common	Removable terminal block	1 word	0.08	_	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	_	CJ1W-ID231	UC1, N, L,
		32 inputs	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	2 words	0.09	_	CJ1W-ID232	CE
CJ1 Basic I/O Units	- F	32 inputs (High speed)	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	2 words	0.20	_	CJ1W-ID233	N, L, CE
		64 inputs	24 VDC, 4.1 mA	16 points, 1 common	Fujitsu connector	4 words	0.09	-	CJ1W-ID261	
	AMIL	64 inputs	24 VDC, 4.1 mA	16 points, 1 common	MIL connector	4 words	0.09	-	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	-	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	-	CJ1W-IA111

#### **Accessories**

Connectors are not included for models with connectors. Either use one of the applicable connector listed below or use an applicable Connector-Terminal Block Conversion Unit or I/O Relay Terminal. For details on wiring methods, refer to External Interface.

#### **Applicable Connectors**

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

Name	Connection	Remarks		Applicable Units	Model	Standards
	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 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			C500-CE403	
	Soldered	FCN-361J024-AU FCN-360C024-J2	Connector Connector Cover		C500-CE241	_
24-pin Connectors	Crimped FCN-363J024 FCN-363J-AU FCN-360C024-J2		Housing Contactor Connector Cover	Fujitsu Connectors: CJ1W-MD231 (16 inputs, 16 outputs): 2 per Unit	C500-CE242	
	Pressure welded	FCN-367J024-AU/	F		C500-CE243	

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

Name	Connection	Remarks	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**

			Number	Terminal		Size		Mo	unting	Common	Bleeder			
Type	Series	I/O	of poles	type	Depth (mm)	Height (mm)	Width (mm)	DIN Track	Screws	terminals	resistance	Indicators	Model	Standards
			20				79						XW2D-20G6	
		I/O									No		XW2D-40G6	
Slim	XW2D		40	М3	39	40	149	Yes	Yes	No		No	XW2D-40C6	
		Inputs	40				149				Built-in		XW2D-40G6-RF	
		only									Duilt-III		XW2D-40G6-RM	
				M3.5			112.5						XW2B-20G5	
Through	XW2B	1/0	20	M3 (European type)	45	45.3	67.5	Vac	Yes	No	No	No	XW2B-20G4	
Through	AW2B	1/0		M3.5	45	45.3	202.5	Yes	163	INO	NO		XW2B-40G5	
			40	M3 (European type)			135						XW2B-40G4	_
With		I/O	20	М3	39	40	149					No	XW2C-20G6-IO16	
common terminals	XW2C	Inputs only	20	M3.5	50	38	160	Yes	Yes	Yes	No	Yes	XW2C-20G5-IN16	
With common terminals, 3-tier	XW2E	Inputs only, 3 tiers	20	M3.5	50	53	149	Yes	Yes	Yes	No	No	XW2E-20G5-IN16	
Screwless	XW2F	Inputs only	20	Clamp	50	40	95.5	Yes	Yes	Yes	No	No	XW2F-20G7-IN16	
clamp terminals	AVVZF	Outputs only	20	Clamp	50	40	95.5	Yes	Yes	Yes	No	No	XW2F-20G7-OUT16	
e-CON	XW2N	Inputs only	20	e-CON connector	50	40	95.5	Yes	Yes	Yes	No	No	XW2N-20G8-IN16	

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

						Specific	ations				(horizon ounting)		Mounting					
Туре	Se	eries	Classi	fication	Polarity	Number of points	Rated ON current at contacts	Operation indicators	Terminal block for power supply wiring	Horizontal (mm)	Vertical (mm)	Height (mm)	DIN Track	Screws	Model Screws			
		Vertical		Relay outputs		16	5A or 3A								G70D-VSOC16	U, C,		
		type G70D-V		MOSFET relay outputs	NPN	(SPST- NO × 16)	0.3A Yes	Expandable	135	46	81	Yes	Yes	G70D-VFOM16	CE			
						8 (SPST- NO × 8)	5A			68	93	44			G70D-SOC08	_		
Space- saving	G70D	Flat	Outputs	Relay outputs	NPN	16 (SPST- NO × 16)	3A								G70D-SOC16	_		
				type G70D			PNP	16 (SPST- NO × 16)	ЗА	Yes	-	156	51	39	Yes	Yes	G70D-SOC16-1	
				MOSFET relay	NPN	16 (SPST-	0.3A								G70D-FOM16	_		
				outputs									G70D-FOM16-1					
High- capacity, space- saving	G70R		Outputs	Relay outputs	NPN	8 (SPST- NO × 8)	10A	Yes	_	136	93	55	Yes	Yes	G70R-SOC08	_		
		Inputs		AC inputs		16									G7TC-IA16			
				Inpu		DC inputs	NPN	(SPST- NO × 16)	1A			182				G7TC-ID16		
Standard	G7TC					8 (SPST- NO × 8)		Yes	_	102	85	68	Yes	_	G7TC-OC08	U, C		
			Outputs	Relay outputs	NPN	16 (SPST- NO × 16)	5A			182					G7TC-OC16			
			PNP 16 (SPST- NO×16)				102					G7TC-OC16-1	-					
High-	G70A	Outouto	Relay	NPN	16 (SPDT× 16	10 A (Terminal	No		024	75	64	Vac		G70A-ZOC16-3 (Socket only) + Relay/SSR/ MOSFET Relay/ Timer	U, C,			
capacity socket	apacity (Socket only)		ty (Sock	et only)	Outputs	outputs	PNP	possible with G2R Relays)	block allowable current)	No	_	234	75	64	Yes	_	G70A-ZOC16-4 (Socket only) + Relay/SSR/ MOSFET Relay/ Timer	CE

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

## **Mountable Racks**

	NJ system		CJ system	(CJ1, CJ2)	CP1H system	NSJ s	ystem
Model	CPU Rack	Expansion Rack	CPU Rack	Expansion Backplane	CP1H PLC	NSJ Controller	Expansion Backplane
CJ1W-ID201				10 Units (per Expansion Backplane)	Not supported	Not supported	
CJ1W-ID211							10 Units (per Expansion Backplane)
CJ1W-ID212			10 Units				
CJ1W-ID231							
CJ1W-ID232	10 Units	10 Units					
CJ1W-ID233	10 Offics	(per Expansion Rack)					
CJ1W-ID261		,		, ,			
CJ1W-ID262							
CJ1W-IA201							
CJ1W-IA111							

## **Specifications**

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

Name	8-point DC Input Unit with Terminal Block
Model	CJ1W-ID201
Rated Input Voltage	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	8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1
Number of Circuits	8 independent circuits
Number of Simultaneously ON Points	100% simultaneously ON
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	80 mA max.
Weight	110 g max.
Circuit Configuration	Signal name  Jxx_Ch1_In00 o  Lag  Lag  Jxx_Ch1_In07 o  Lag  Jxx_Ch1_In07 o  Lag  Jxx_Ch1_In07 o  Lag  Lag  Jxx_Ch1_In07 o  Lag  Lag  Lag  Lag  Lag  Lag  Lag  La
External connection and terminal-device variable diagram	Signal name pin 12 and

<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

<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.

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

#### CJ1W-ID211 DC Input Unit (24 VDC, 16 Points)

	C 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	Signal name 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   Day   Day					

<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.
\*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)

16-point DC Input Unit with Terminal Block					
CJ1W-ID212					
24 VDC					
20.4 to 26.4 VDC					
3.3 kΩ					
7 mA typical (at 24 VDC)					
14.4 VDC min./3 mA min.					
5 VDC max./1 mA max.					
8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1					
8.0 ms max. (Can be set to between 0 and 32 ms in the Setup.) *1					
16 (16 points/common, 1 circuit)					
100% simultaneously ON (at 24 VDC) (Refer to the following illustration.)					
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.					
130 mA max.					
110 g max.					
Signal name of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.					
Signal name    Name   N					
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4					

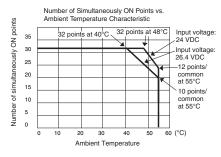
<sup>\*1.</sup> The ON response time will be 15 μs maximum and OFF response time will be 90 μs maximum even if the response time are set to 0 ms due

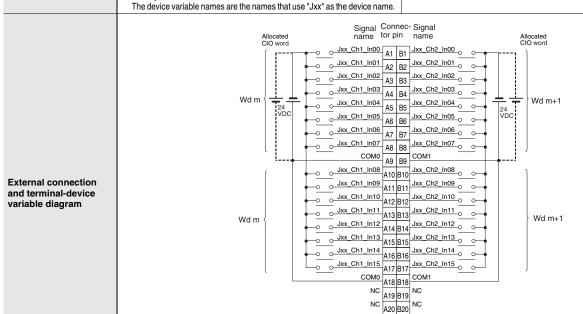
to internal element delays.
\*2. Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

### 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					
	Allocated Signal CIO word name  Number of Simultaneously ON Points vs. Ambient Temperature Characteristic  Wd m   Wd m   Ambient Temperature Characteristic  Section 2.32 points at 48°C I input voltage.					

# Jxx\_Ch1\_ln15 COM0 Circuit Configuration 5.6 kΩ • The signal names of the terminals are the device variable names





- 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)

00111 10202 0	C input offit (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						
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	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	90 mA max.						
Weight	70 g max.						
Accessories	None						
Circuit Configuration	Connector row A  Connector row B  Connec						
External connection and terminal-device variable diagram	Allocated CIO word    Compete						
	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.  The device variable names are the names that use "Jxx" as the device name.						

<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.

**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.

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

CU 1 W-1D233 D	C input Onit (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						
Input Impedance	5.6 kΩ						
Input Current	I.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	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 Internal Current	1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.						
Consumption	200 mA max.						
Weight	70 g max.						
Accessories	None						
Circuit Configuration	Allocated CIO word 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	Allocated CIO word    COM   3   4   COM   3   Ch2   In05   Com   3   Co						
	<ul> <li>Be sure to wire both pins 3 and 4 (COM1), and set the same polarity for both pins.</li> <li>The signal names of the terminals are the device variable names.</li> <li>The device variable names are the names that use "Jxx" as the device name.</li> </ul>						

<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.

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.

## CJ1W-ID261 DC Input Unit (24 VDC, 64 Points)

Name	64-point DC Input Unit with Fujitsu Connector		
Model	CJ1W-ID261		
Rated Input Voltage Rated Input Voltage Range	24 VDC 20.4 to 26.4 VDC		
Input Impedance	20.4 t0 26.4 VDC 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	64 (16 points/common, 4 circuits)		
Number of Simultaneously ON Points	50% (16 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustrations.)		
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	90 mA max.		
Weight	110 g max.		
Accessories	None		
Circuit Configuration	Allocated Signal CIO word name  COnnector Wd Jxx_Ch1_In00  Connector row A  Connector row B  Connector row B		
External connection and terminal-device variable diagram	Allocated CIO word    Signal   Connection   Signal   Connection   Signal   Allocated CIO word		
* The ON response time	e 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.

- 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.

## CJ1W-ID262 DC Input Unit (24 VDC, 64 Points)

Imput Current ON Votage/ON Current OF Votage/OF Current OF Reponse Time OF Reponse		, , ,			
Rated injust Voltage  20.4 to 26.4 VDC  Rangel  Rangel  20.5 St 24 VDC  Rangel  Rangel		·			
Raed input Voltage Range Input Imput Imput Current  5.6 KD  1. The Application of the Common Service of the Co					
Injust Importance   5.5 kG   minute Current   0.5 kG   minute Current	Rated Input Voltage	24 VDC	24 VDC		
Accessories  Figure Configuration  Circuit Configuration  Figure C	Rated Input Voltage	20.4 to 26.4 VDC			
Imput Current ON Votage/ON Current OF Votage/OF Current OF Reponse Time OF Reponse	Range	20.4 to 20.4 VDO			
ON VotageON Current ON Response Time ON Response Time ON Response Time ON The Compose	Input Impedance	5.6 kΩ			
OFF Velographer Firm  8.0 ms max. (Can be set to between 0 and 32 in the Setup.)  9.7 Reponse Time  9.0 ms max. (Can be set to between 0 and 32 in the Setup.)  9.7 Reponse Time  9.0 ms max. (Can be set to between 0 and 32 in the Setup.)  9.7 Reponse Time  9.1 ms missing in set to set to between 0 and 32 in the Setup.)  9.7 Reponse Time  1.700 VAC between external terminals and the GRI terminal (100 VDC)  1.700 VAC between external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the terminals and t	Input Current	4.1 mA typical (at 24 VDC)			
OFF Velographer Firm  8.0 ms max. (Can be set to between 0 and 32 in the Setup.)  9.7 Reponse Time  9.0 ms max. (Can be set to between 0 and 32 in the Setup.)  9.7 Reponse Time  9.0 ms max. (Can be set to between 0 and 32 in the Setup.)  9.7 Reponse Time  9.1 ms missing in set to set to between 0 and 32 in the Setup.)  9.7 Reponse Time  1.700 VAC between external terminals and the GRI terminal (100 VDC)  1.700 VAC between external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the external terminals and the GRI terminal (100 VDC)  1.700 VAC between the terminals and t	ON Voltage/ON Current	19.0 VDC min./3 mA min.			
ON Response Time Number of Circuits Number of Circuits Some (an be set to between 0 and 32 in the Setup.)*  8. On smax. (Can be set to between 0 and 32 in the Setup.)*  9. On the max. (Can be set to between 0 and 32 in the Setup.)*  9. On the max. (Can be set to between 0 and 32 in the Setup.)*  9. On the max. (Can be set to between 0 and 32 in the Setup.)*  9. On the max. (See to the control of the control	OFF Voltage/OFF Current	5 VDC max./1 mA max.			
OF Fesponse Time Number of Circuits Number of Simultaneously Of Points Insulation Resistance Different Simultaneously Of Report to the following illustrations.)  20% (8 points/common, 4 circuits Insulation Resistance Different Simultaneously Diff		8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *	<del></del>		
Number of Circuits  Winther of Stimulaneously ON Points  Strength One control of the contro		` ' '			
Number of Simultaneously ON (at 24 VDC) (Refer to the following illustrations.)  For insulation Resistance  20 M2 between external terminals and the GRI terminal for 1 minute at a leakage current of 10 mA max.  1,000 MAC between the external terminals and the GRI terminal for 1 minute at a leakage current of 10 mA max.  100 mA max.  100 mA max.  110 g		, , , , , , , , , , , , , , , , , , , ,			
Solve of points commond) initiation only only (at 2 v UU), (refer to the following illustrations.)  Initiation Resistance  20 MA between external terminals and the GR terminal (10 V VC)  100 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.					
Display   1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.		50% (8 points/common) simultaneously ON (at 24 VDC) (Refer to the	e following illustrations.)		
Display   1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.	Insulation Resistance	20 MΩ between external terminals and the GR terminal (100 VDC)	<del></del>		
Internal Current Consumption  90 mA max.  Accessories  None  Accessories  Accessori	Dielectric Strength	` ,	I minute at a leakage current of 10 mA max.		
## Africade Signal Correspond Filter Between Status Study Status Color and Signal Correspond Status	•				
Circuit Configuration  Circuit Configuration  The signal names of the terminals are the device variable names.  The device variable diagram  **The input power polarity can be connected in either direction.  **Be sure to wire both pins and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins and account of the terminals are the device variable names.  The device variable names are the names that use "Lot" and set the same polarity for both pins.  **The input power polarity can be connected in either direction.  **Be sure to wire both pins and account of the terminals are the device variable names.  **The signal names of the terminals are the device variable names.  **The signal names of the terminals are the device variable names.  **The device variable names are the names that use "Lot" as the device name.  **The signal names of the terminals are the device variable names.  **The device variable nam		90 mA max.			
Circuit Configuration  Circuit Configuration  The signal names of the terminals are the device variable names.  The device variable diagram  **The input power polarity can be connected in either direction.  **Be sure to wire both pins and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins as and a connected in either direction.  **Be sure to wire both pins and account of the terminals are the device variable names.  The device variable names are the names that use "Lot" and set the same polarity for both pins.  **The input power polarity can be connected in either direction.  **Be sure to wire both pins and account of the terminals are the device variable names.  **The signal names of the terminals are the device variable names.  **The signal names of the terminals are the device variable names.  **The device variable names are the names that use "Lot" as the device name.  **The signal names of the terminals are the device variable names.  **The device variable nam	Weight	110 g max.	<del></del>		
Circuit Configuration  The departs again a consecution and terminals are the consecution and terminals device variable names are the names that use 'Lox' as the device name.  External connection and terminals device variable names are the nam		<del>-</del>			
Allocated CIO word signal Connection and terminal-device variable diagram  Allocated CIO word signal Connection and terminal-device variable diagram  Allocated CIO word signal Connection and terminal-device variable diagram  Allocated CIO word signal Connection and terminal-device variable names are the names of the terminals are the device variable names. The elique to variable names.  The signal amase of the terminals are the device variable names.  The signal amase of the terminals are the device variable names.  The signal amase of the terminals are the device variable names.  The signal amase of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device variable names.  The signal names of the terminals are the device names.  The signal names of the terminals are the names that use 'Jux' as the device name.	Circuit Configuration	CIO word name  Wd m   Jxx_Ch1_In00	Ambient Temperature Characteristic  64 points at 25°C 64 points at 35°C, 64 points at 47°C  Input voltage: 20.4 VDC  12 points/common (total: 45 points) at 55°C  8 points/common at 55°C  8 points/common (total: 26 points) at 55°C  8 points/common (total: 26 points) at 55°C  8 points/common (total: 26 points max.) at 55°C  Ambient Temperature		
	External connection and terminal-device variable diagram	CIO word    CIO word   Name   tor pin   Name   CIO word	CIO word    Comparison   Cio word   Cio word		
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	* The ON recognes time				

<sup>\*</sup> 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.

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.

## 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	Input indicator  Jxx_Ch1_In00  Jxx_Ch1_In07  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	Connector pin '2 Signal name  NC A0 B0 Jxx_Ch1_In00  NC A1 B1 Jxx_Ch1_In01  NC A2 B2 Jxx_Ch1_In02  NC A3 B3 Jxx_Ch1_In03  NC A4 B4 Jxx_Ch1_In04  NC A5 B5 Jxx_Ch1_In05  NC A6 B6 Jxx_Ch1_In06  Description:  Signal name  200 to 240 VAC		
	NC A7 Ivy Chi In07		

\*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.

СОМ

B8

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

NC A8

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

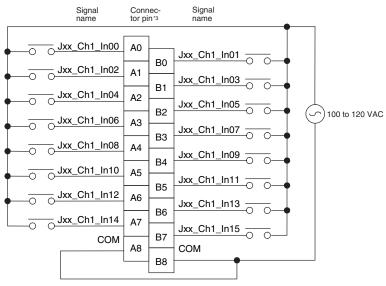
The device variable names are the names that use "Jxx" as the device name.

<sup>\*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)

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	85 to 132 VAC		
Input Impedance	14.5 kΩ (50 Hz), 12 kΩ (60 Hz)		
Input Current	7 mA typical (at 100 VAC, 50 Hz), 8 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	18 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		
Circuit Layout	Signal name   Input indicator   Signal   Signal		
	The device variable names are the names that use DAX as the device name.		
	Signal Connec- Signal name tor pin⁻₃ name		
	Jxx_Ch1_ln00 A0  Jxx_Ch1_ln02 A1  Jxx_Ch1_ln04 A2  Jxx_Ch1_ln04 A2  Jxx_Ch1_ln05 O  Jxx_Ch1_ln06 A2  B2  Jxx_Ch1_ln05 O  100 to 120 VAC		

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.
- \*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

Allocated CIO word		Cianal name (C I/N I)
CIO	Bit	Signal name (CJ/NJ)
	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
	:	:
	06	IN6/Jxx_Ch1_In06
Wd m	07	IN7/Jxx_Ch1_In07
(Input)	08	_
	09	_
	:	:
	14	_
	15	_

#### 16-point Input Unit

Allocated CIO word		Signal name (C I/N I)
CIO	Bit	Signal name (CJ/NJ)
	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
Wd m (Input)	:	:
(mpat)	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15

#### 32-point Input Unit

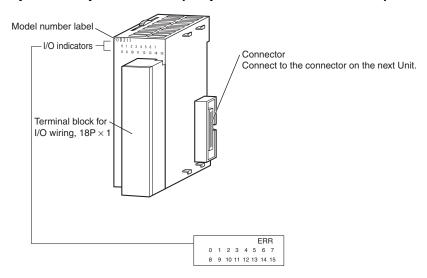
Allocated CIO word		Signal name (C I/N I)	
CIO	Bit	Signal name (CJ/NJ)	
	00	IN0/Jxx_Ch1_In00	
	01	IN1/Jxx_Ch1_In01	
Wd m (Input)	:	:	
(p)	14	IN14/Jxx_Ch1_In14	
	15	IN15/Jxx_Ch1_In15	
Wd m+1 (Input)	00	IN0/Jxx_Ch2_In00	
	01	IN1/Jxx_Ch2_In01	
	:	:	
	14	IN14/Jxx_Ch2_In14	
	15	IN15/Jxx_Ch2_In15	

#### **64-point Input Unit**

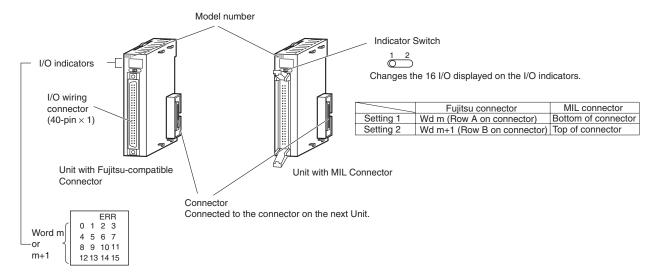
Allocated CIO word		Cinnal name (O I/N I)
CIO	Bit	Signal name (CJ/NJ)
	00	IN0/Jxx_Ch1_In00
	01	IN1/Jxx_Ch1_In01
Wd m (Input)	:	:
(mpat)	14	IN14/Jxx_Ch1_In14
	15	IN15/Jxx_Ch1_In15
	00	IN0/Jxx_Ch2_In00
	01	IN1/Jxx_Ch2_In01
Wd m+1 (Input)	:	:
(pat)	14	IN14/Jxx_Ch2_In14
	15	IN15/Jxx_Ch2_In15
	00	IN0/Jxx_Ch3_In00
	01	IN1/Jxx_Ch3_In01
Wd m+2 (Input)	:	:
(mpat)	14	IN14/Jxx_Ch3_In14
	15	IN15/Jxx_Ch3_In15
	00	IN0/Jxx_Ch4_In00
	01	IN1/Jxx_Ch4_In01
Wd m+3 (Input)	:	:
(mpar)	14	IN14/Jxx_Ch4_In14
	15	IN15/Jxx_Ch4_In15

#### **External Interface**

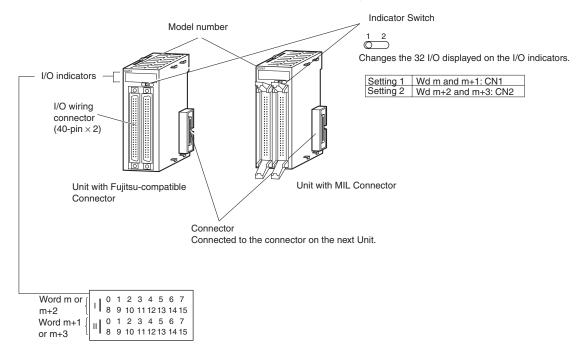
## 8-point/16-point Units (18-point Terminal Blocks)



## 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.

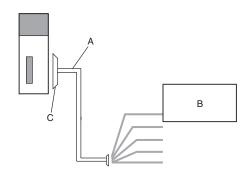


### I/O Unit Wiring Methods

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

#### 1. User-provided Cable

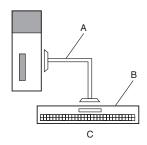
An I/O Unit can be directly connected to an external device by using a connector.



Α	User-provided cable	
В	External device	
С	Connector	

#### 2. Connector-Terminal Block Conversion Unit

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

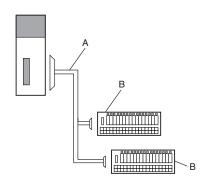


Α	Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z
В	Connector-Terminal Block Conversion Unit XW2□
С	Conversion to a screw terminal block

#### 3. I/O Relay Terminal

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

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



Α	G79 I/O Relay Terminal Connecting Cable
В	G7□□ I/O Relay Terminals Or, conversion to relay outputs and AC inputs.

## 1. Using User-made Cables with Connector

#### **Available Connectors**

Use the following connectors when assembling a connector and cable.

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

Model	Specifications	Pins
CJ1W-ID231	Input Unit, 24 VDC, 32 inputs	40
CJ1W-ID261	Input Unit, 24 VDC, 64 inputs	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	40
CJ1W-ID262	Input Unit, 24 VDC, 64 inputs	

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

Connection	Pins	OMRON set	DDK parts		
Pressure-welded	40	XG4M-4030-T	FRC5-A040-3T0S		

#### Wire Size

We recommend using cable with wire gauges of AWG 24 or AWG 28 (0.2 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
Hand Press	FCN-707T-T101/H
Cable Cutter	FCN-707T-T001/H
Locator Plate	FCN-367T-T012/H

## The following models are recommended for crimping tools for MIL connectors. Tools for Crimped Connectors (OMRON)

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

## 2. Connecting Connector-Terminal Block Conversion Units

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

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

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

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	Connector-Terminal Block Conversion Unit	Common terminal
				Α	None	XW2Z-□□□B	XW2D-40G6	None
				Α	None	XW2Z-□□□B	XW2D-40G6-RF *2	None
				Α	None	XW2Z-□□□B	XW2B-40G5	None
				Α	None	XW2Z-□□□B	XW2B-40G4	None
			NPN/PNP	Α	None	XW2Z-□□□BU	XW2D-40C6	None
				В	2	XW2Z-□□□D	XW2D-20G6 (2 Units)	None
CJ1W-ID231	32 inputs	1 Fujitsu connector		В	2	XW2Z-□□□D	XW2B-20G5 (2 Units)	None
				В	2	XW2Z-□□□D	XW2B-20G4 (2 Units)	None
				В	2	XW2Z-□□□D	XW2C-20G6-IO16 (2 Units)	Yes
				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
				В	2	XW2Z-□□□D	XW2N-20G8-IN16 (2 Units) *1	Yes

Unit	I/O capacity	Number of connectors	Polarity	Connection pattern	Number of branches	Connecting Cable	Connector-Terminal Block Conversion Unit	Commor terminal
				Α	None	XW2Z-□□□K	XW2D-40G6	None
			Α	None	XW2Z-□□□K	XW2D-40G6-RM *2	None	
			Α	None	XW2Z-□□□K	XW2B-40G5	None	
			Α	None	XW2Z-□□□K	XW2B-40G4	None	
				В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
S 14 W IDOOO	20 innute	1 MIL	NPN/PNP	В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
CJ1W-ID232	32 inputs	connector	INPIN/PINP	В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
				В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2C-20G5-IN16 (2 Units) *1	Yes
				В	2	XW2Z-□□□N	XW2E-20G5-IN16 (2 Units) *1	Yes
				В	2	XW2Z-□□□N	XW2F-20G7-IN16 (2 Units) *1	Yes
				В	2	XW2Z-□□□N	XW2N-20G8-IN16 (2 Units) *1	Yes
				Α	None	XW2Z-□□□K	XW2D-40G6	None
				Α	None	XW2Z-□□□K	XW2D-40G6-RM *2	None
				Α	None	XW2Z-□□□K	XW2B-40G5	None
				Α	None	XW2Z-□□□K	XW2B-40G4	None
				В	2	XW2Z-□□□N	XW2D-20G6 (2 Units)	None
		1 MIL		В	2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
CJ1W-ID233	32 inputs	connector	NPN/PNP	В	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
				В	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				В	2	XW2Z-□□□N	XW2C-20G5-IN16 (2 Units) *1	Yes
				В	2	XW2Z-□□□N	XW2E-20G5-IN16 (2 Units) *1	Yes
				В	2	XW2Z-□□□N	XW2F-20G7-IN16 (2 Units) *1	Yes
				В	2	XW2Z-□□□N	XW2N-20G8-IN16 (2 Units) *1	Yes
				D	None	XW2Z-□□□B	XW2D-40G6	None
				D	None	XW2Z-□□□B	XW2D-40G6-RF *2	None
				D	None	XW2Z-□□□B	XW2B-40G5	None
				D	None	XW2Z-□□□B	XW2B-40G4	None
				D	None	XW2Z-□□□BU	XW2D-40C6	None
				F	2	XW2Z-□□□D	XW2D-20G6 (2 Units)	None
J1W-ID261	64 inputs	2 Fujitsu	NPN/PNP	F	2	XW2Z-□□□D	XW2B-20G5 (2 Units)	None
JOIN IDEOI	04 Inputs	connectors	141 14/1 141	F	2	XW2Z-□□□D	XW2B-20G4 (2 Units)	None
				F	2	XW2Z-□□□D	XW2C-20G6-IO16 (2 Units)	Yes
				F	2	XW2Z-□□□D	XW2C-20G5-IN16 (2 Units) *1	Yes
				F	2	XW2Z-UUD	XW2E-20G5-IN16 (2 Units) *1	Yes
				F	2	XW2Z-□□□D	XW2F-20G7-IN16 (2 Units) *1	Yes
				F	2	XW2Z-□□□D	XW2N-20G8-IN16 (2 Units) *1	Yes
				D	+		XW2N-20G6-IN 16 (2 OTIRS) 1	
				D	None None	XW2Z-□□□K XW2Z-□□□K	XW2D-40G6-RM *2	None
					-			None
				D	None	XW2Z-□□□K	XW2B-40G5	None
				D F	None	XW2Z-□□□K	XW2B-40G4 XW2D-20G6 (2 Units)	None
				F	2	XW2Z-□□□N	, ,	None
J1W-ID262	64 inputs	2 MIL connectors	NPN/PNP		2	XW2Z-□□□N	XW2B-20G5 (2 Units)	None
		501111001013		F	2	XW2Z-□□□N	XW2B-20G4 (2 Units)	None
				F	2	XW2Z-□□□N	XW2C-20G6-IO16 (2 Units)	Yes
				F	2	XW2Z-□□□N	XW2C-20G5-IN16 (2 Units) *1	Yes
				F	2	XW2Z-□□□N	XW2E-20G5-IN16 (2 Units) *1	Yes
				F	2	XW2Z-□□□N	XW2F-20G7-IN16 (2 Units) *1	Yes

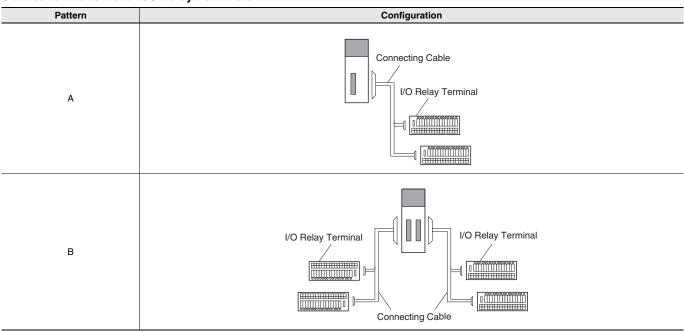
<sup>\*1.</sup> The inputs are NPN. For PNP inputs, reverse the polarity of the external power supply connections to the power supply terminals on the Connector-Terminal Block Conversion Unit.
\*2. Bleeder resistance (5.6 kΩ) is built in.

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

Cable lenght	XW2Z-□□A	XW2Z-□□B	XW2Z-□□BU	XW2Z-□□D	XW2Z-□□L	XW2Z-□□X
0.25m	-	-	-	-	-	-
0.5m	XW2Z-050A	XW2Z-050B	XW2Z-050BU	-	-	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	-	XW2Z-15MD	XW2Z-15ML	-
20.0m	XW2Z-20MA	XW2Z-20MB	-	XW2Z-20MD	XW2Z-20ML	-

## 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
CJ1W-ID231	32 inputs	1 Fujitsu	NPN	Α	2	G79-I□C-□	G7TC-ID16
C31W-ID231	32 inputs	connector	INFIN	Α	2	G79-I□C-□	G7TC-IA16
C HW ID000	CJ1W-ID232 32 inputs	1 MIL connector	NPN	Α	2	G79-O□-□-D1	G7TC-ID16
CJ I W-ID232		I MIL connector		Α	2	G79-O□-□-D1	G7TC-IA16
C HW ID000	CJ1W-ID233 32 inputs	1 MIL connector	NPN	Α	2	G79-O□-□-D1	G7TC-ID16
CJ I W-ID233				Α	2	G79-O□-□-D1	G7TC-IA16
O IAW IDood	Od in suits	2 Fujitsu	NDN	В	2	G79-I□C-□	G7TC-ID16
CJ1W-ID261 64 inputs	connectors	NPN	В	2	G79-I□C-□	G7TC-IA16	
O HAW IDOGO	C4 in suits	2 MIL	NIDNI	В	2	G79-O□-□-D1	G7TC-ID16
CJ1W-ID262 64 inputs	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-O□C-□	G79-O□-□-D1
0.25m	-	G79-I25C	-	G79-O25C	-	-
0.5m	_	G79-I50C	-	G79-O50C	_	G79-O50-25-D1
1.0m	G79-100C	-	G79-I100C-75	-	G79-O100C-75	G79-O75-50-D1
1.5m	G79-150C	_	G79-I150C-125	_	G79-O150C-125	_
2.0m	G79-200C	_	G79-I200C-175	_	G79-O200C-175	-
3.0m	G79-300C	-	G79-I300C-275	-	G79-O300C-275	-
5.0m	G79-500C	_	G79-I500C-475	_	G79-O500C-475	_

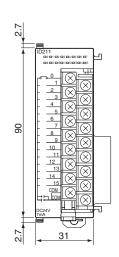
Dimensions (Unit: mm)

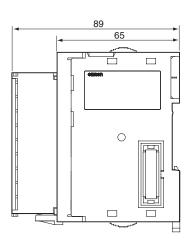
## 8-point/16-point Units (18-point Terminal Blocks)

CJ1W-ID201 CJ1W-ID211 CJ1W-ID212

CJ1W-IA201 CJ1W-IA111



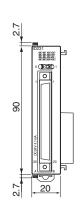


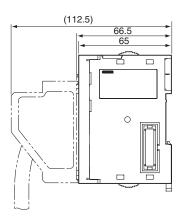


### 32-point Units (Input Units)

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

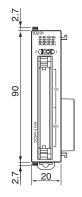


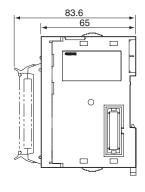




With MIL Connector (40-pin  $\times$  1) CJ1W-ID232 CJ1W-ID233



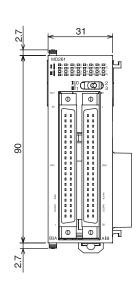


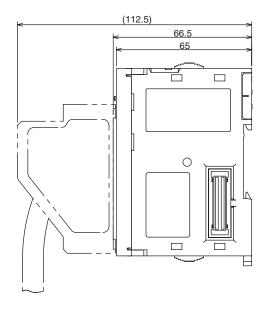


## **64-point Units (Input Units)**

With Fujitsu-compatible Connector (40-pin  $\times$  2) CJ1W-ID261

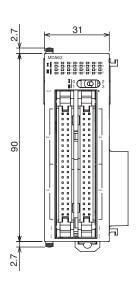


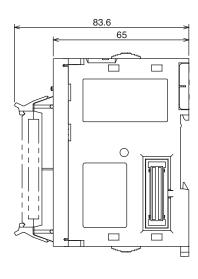




With MIL Connector (40-pin  $\times$  2) CJ1W-ID262







## **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).

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