

Capture Input Signals Shorter Than the Cycle Time

- This Input Unit can read pulse inputs that are shorter than the cycle time of the CPU Unit.



CJ1W-IDP01

Features


- A pulse width (ON time) of 0.05 ms min. can be read by the Quick-response Input Unit.
- Input data read by the internal circuits is cleared when inputs are refreshed.
- Quick-response Input Units can be used when communicating with inspection equipment to read the many pulse signals that are too short to be read with normal I/O Units.

Ordering Information

International Standards

- The standards are abbreviated as follows: U: UL, U1: UL(Class 1 Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class 1 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.

Quick-response Input Unit

Unit type	Product name	Specifications					No. of words allocated	Current consumption (A)		Model	Standards
		I/O points	Input voltage, Input current	Commons	Input pulse width conditions	External connection		5 V	24 V		
CJ1 Basic I/O Units	Quick-response Input Unit 	16 inputs	24 VDC, 7 mA	16 points, 1 common	ON time: 0.05 ms max. OFF time: 0.5 ms max.	Removable terminal block	1 word	0.08	–	CJ1W-IDP01	UC1, N, L, CE

Note: There are no restrictions on the mounting position or number of Units.

Accessories

There is no accessory for the CJ series Quick-response Input Units.

Mountable Racks

Model	NJ system		CJ system (CJ1, CJ2)		CP1H system	NSJ system *	
	CPU Rack	Expansion Rack	CPU Rack	Expansion Backplane	CP1H PLC	NSJ Controller	Expansion Backplane
CJ1W-IDP01	10 Units	10 Units (per Expansion Rack)	10 Units	10 Units (per Expansion Backplane)	Not supported	Not supported	10 Units (per Expansion Backplane)

* Product no longer available to order.

Specifications

CJ1W-IDP01 Quick-response Input Unit (16 Points)

Name	16-point Quick-response Input Unit with Terminal Block
Model	CJ1W-IDP01
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	0.05 ms max.
OFF Response Time	0.5 ms max.
Number of Circuits	16 (16 points/common, 1 circuit)
Number of Simultaneously ON Points	100% (16 points/common) simultaneously ON (24 VDC)
Insulation Resistance	20 MΩ between external terminals and GR terminal (at 100 VDC)
Dielectric Strength	1,000 VAC between external terminals and GR terminal for 1 minute at a leakage current of 10 mA max.
Internal Current Consumption	80 mA max.
Weight	110 g max.
Accessories	None

Circuit Configuration

Number of simultaneously ON points -- Ambient temperature characteristics

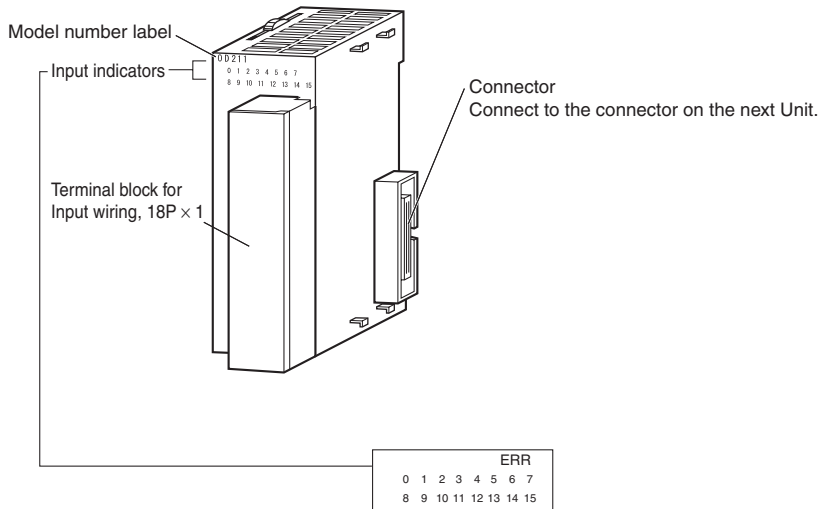
• The signal names of the terminals are the device variable names.
The device variable names are the names that use "Jxx" as the device name.

External connection and terminal-device variable diagram

• The input power supply polarity 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.

- With quick-response inputs, pulse inputs shorter than the CPU Unit's cycle time can be read by the CPU Unit.
 - The pulse width (ON time) that can be read by the Quick-response Input Unit is 0.05 ms.
 - Inputs read by the internal circuits are cleared when inputs are refreshed.
- * 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.

External Interface



Wiring Terminal Blocks

Electric Wires

The following wire gauges are recommended.

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

Crimp terminals

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

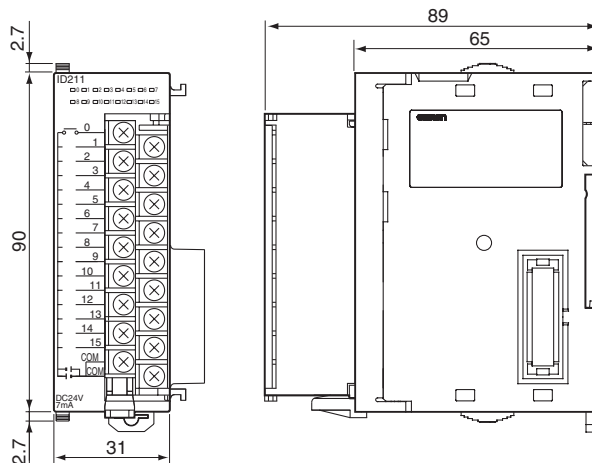


Dimensions

(Unit: mm)

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

CJ1W-IDP01



Related Manuals

Name	Cat. No.	Contents
CJ-series CJ2H-CPU6□-EIP, CJ2H-CPU6□, CJ2M-CPU□□ CJ2 CPU Unit Hardware User's Manual	W472	Describes the following for CJ2 CPU Units: <ul style="list-style-type: none"> • Overview and features • Basic system configuration • Part nomenclature and functions • Mounting and setting procedure • Remedies for errors • Also refer to the Software User's Manual (W473).
CJ Series CJ1H-CPU□□-H-R, CJ1G/H-CPU□□H, CJ1G-CPU□□P, CJ1G-CPU□□, CJ1M-CPU□□ Programmable Controllers Operation Manual	W393	Provides an outlines of and describes the design, installation, maintenance, and other basic operations for the CJ-series PLCs.
NJ-series CPU Unit Hardware User's Manual NJ501-□□□□	W500	An introduction to the entire NJ-series system is provided along with the following information on a Controller built with an NJ501 CPU Unit. <ul style="list-style-type: none"> • 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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2022.5

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