

CJ1W-IDP01

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

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.

International Standards

- The standards indicated in the "Standards" column are those current for UL, CSA, cULus, cUL, NK, and Lloyd standards and EC Directives as of the end of September 2008. The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Ask your OMRON representative for the conditions under which the standards were met.

Mountable Racks

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

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

Ambient Temperature (°C)	Number of simultaneously ON points
0 - 45	16
45 - 55	12
55 - 60	0

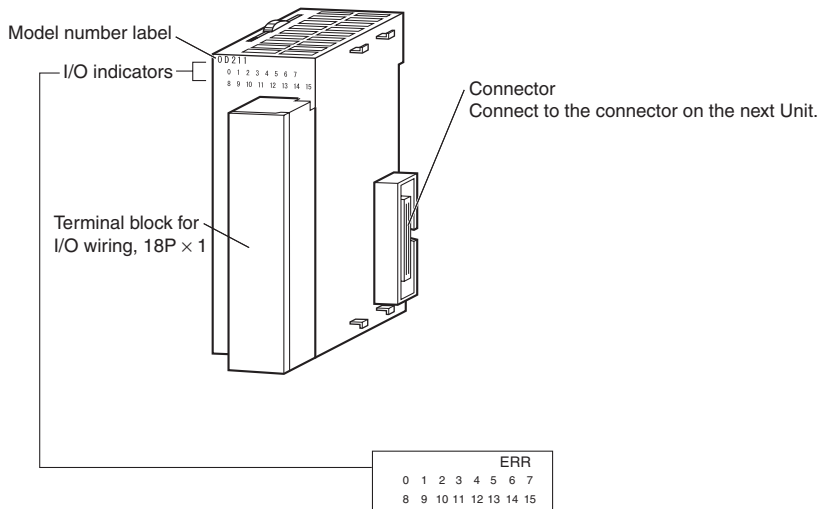
Terminal Connections

• The input power supply polarity can be connected in either direction.

- 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 this datasheet, but they are not printed on the Unit.

External Interface

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



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 ²)

Crimp terminals

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

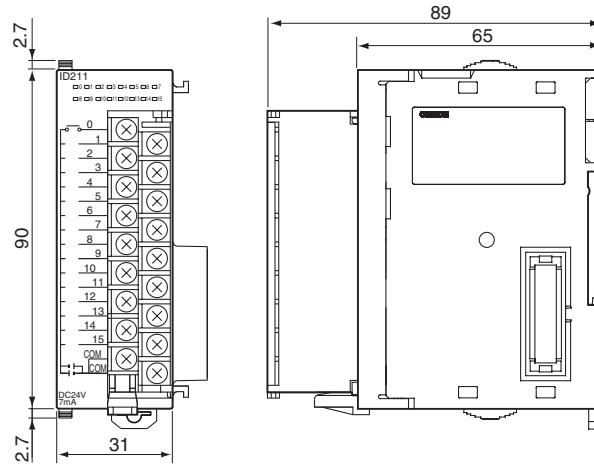


Dimensions

(Unit: mm)

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

CJ1W-IDP01



Related Manuals

Name	Cat. No.	Contents
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.

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