

CJ-series Interrupt Input Units

CJ1W-INT01

CSM_CJ1W-INT01_DS_E_2_2

High-speed Starting of I/O Interrupt Tasks. Use Up to Two Units for a Total of Up to 32 Interrupt Inputs.

- Receive inputs to start I/O interrupt tasks. When the Interrupt Input Unit receives an input, the CPU Unit will interrupt execution of the cyclic tasks in the normal program and execute an I/O interrupt task.



CJ1W-INT01

Features


- High-speed ON response of 0.05 ms
 - Use up to 32 interrupt inputs with up to two Units per CPU Unit.
 - Applicable with both NPN and PNP output devices. Polarity selection is not required. *
- * The same polarity is used for the same common.

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.

Interrupt Input Units

| Unit type | Product name | Specifications | | | | | | No. of words allocated | Current consumption (A) | | Model | Standards |
|---------------------|---|----------------|-----------------------|---------------------|--|-------------------------------|--------------------------|------------------------|-------------------------|------|------------|---------------|
| | | I/O points | Input voltage current | Commons | Input pulse width conditions | Max. Units mountable per Unit | External connection | | 5 V | 24 V | | |
| CJ1 Basic I/O Units | Interrupt Input Unit  | 16 inputs | 24 VDC, 7 mA | 16 points, 1 common | ON time: 0.05 ms max. OFF time: 0.5 ms max. | 2 | Removable terminal block | 1 word | 0.08 | – | CJ1W-INT01 | UC1, N, L, CE |

Note: 1. Can be used only on CPU Racks, and not on Expansion Racks.

2. The locations where the Units can be mounted depend on the CPU Rack and the CPU Unit model.

CJ2H-CPU6□-EIP: From the slot next to the CPU Unit until the fourth slot.

CJ1G, CJ1H: From the slot next to the CPU Unit until the fifth slot.

CJ1M: From the slot next to the CPU Unit until the third slot. (Final order entry date for CJ1M :The end of March, 2021)

3. With the SYSMAC NJ-series Controllers, Interrupt Input Units can be used as normal Basic Input Units. They cannot be used to start I/O interrupt tasks.

Accessories

There is no accessory for the CJ series Interrupt Input Units.

Mountable Racks

| Model | NJ system | | CJ system (CJ1, CJ2) | | | CP1H system | NSJ system | |
|------------|--------------|------------------|----------------------|---------------------------|---------------------|---------------|----------------|---------------------|
| | CPU Rack | Expansion Rack | CJ1-CPU Rack | CPU Units other than left | Expansion Backplane | CP1H PLC | NSJ Controller | Expansion Backplane |
| CJ1W-INT01 | 2 Units *1*4 | Not supported *3 | Not supported | 2 Units *2 | Not supported *3 | Not supported | Not supported | Not supported *3 |

*1. The Interrupt Input Unit can be mounted in slots 0 to 4 on the CJ1-CPU Rack. An Incorrect Unit/Expansion Rack Connection error will occur if an Interrupt Input Unit is mounted to slot 5 or higher.

*2. Connectable slot position changes with the CPU Unit.

- CJ1M-CPU□□: Slot No.0 to 2
- CJ2H-CPU□□-EIP: Slot No.0 to 3
- CPU Unit other than above: Slot No.0 to 4

If the Unit is mounted to the slot other than above, I/O setting error will occur. (Final order entry date for CJ1M :The end of March, 2021)

*3. An I/O setting error will occur if an Interrupt Input Unit is mounted to an Expansion Rack.

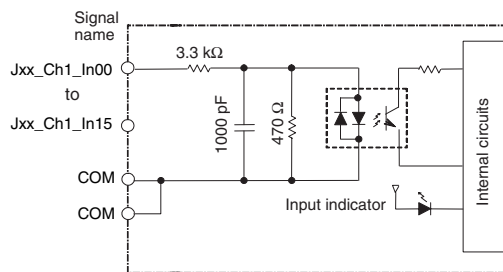
*4. Interrupt Input Units can be used as normal Basic Input Units. They cannot be used to start I/O interrupt tasks.

Specifications

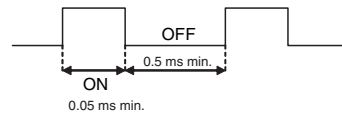
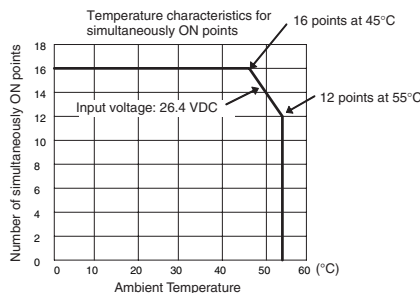
CJ1W-INT01 Interrupt Input Unit (16 Points)

| | |
|---|--|
| Name | 16-point Interrupt Input Unit with Terminal Block |
| Model | CJ1W-INT01 |
| 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 |

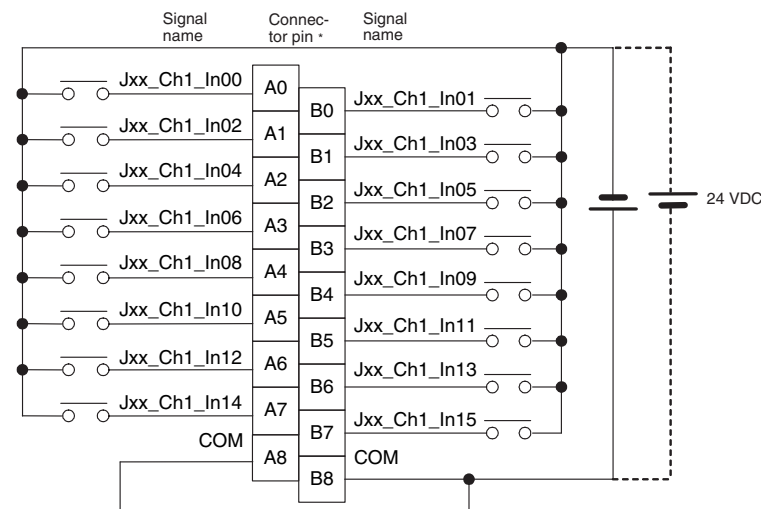
Circuit Configuration



- Up to two Interrupt Input Units can be mounted to the CPU Rack. They must be connected as one of the five Units immediately next to the CPU Unit. If an Interrupt Input Unit is connected in any other position, an Incorrect Unit/Expansion Rack Connection error will occur.
- Set the pulse width of signals input to the Interrupt Input Unit so they satisfy the following conditions.
- 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

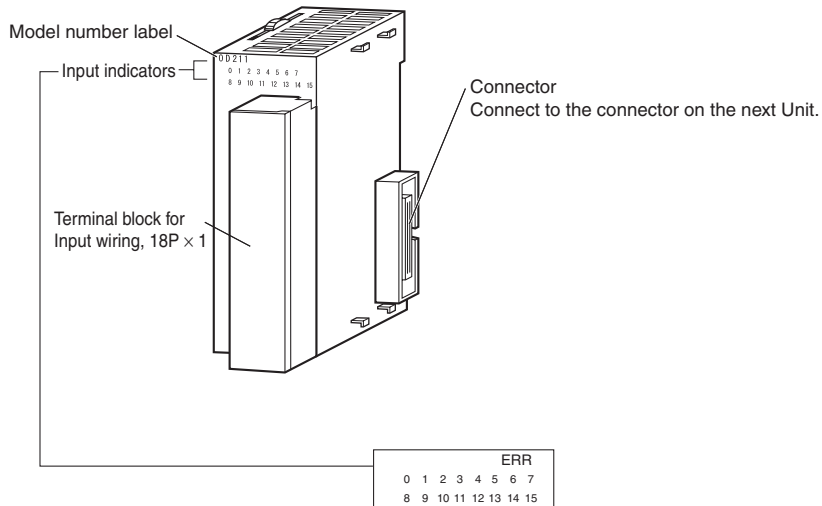


- The polarity can be connected in either direction.
- The signal names of the terminals are the device variable names. The device variable names are the names that use "Jxx" as the device name.

Note: With NJ-series Controllers, Interrupt Input Units can be used as normal Basic Input Units. They cannot be used to start I/O interrupt tasks.

* 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) |

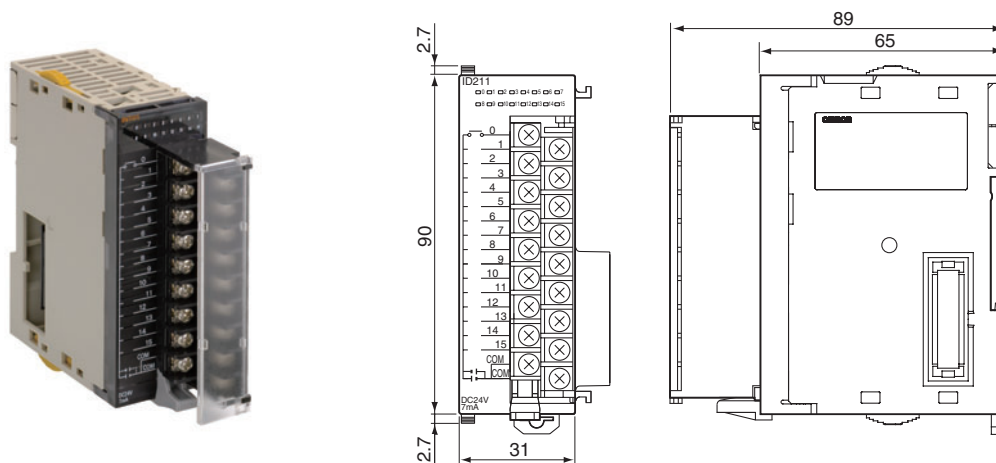
Crimp terminals

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



Dimensions

(Unit: mm)



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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