CJ-series Input Units CJ1W-ID/IA

CSM_CJ1W-ID_IA_DS_E_11_7

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

| | Product | | Sp | pecifications | | | Current consumption (A) | | Model | Standards |
|------------------------|-------------------|---------------------------|--|------------------------|-----------------------------|------------------------------|-------------------------------|------|------------|------------------|
| Unit type | name | I/O points | Input voltage and current Commons | | External connection | No. of words allocated | 5 V | 24 V | Model | |
| | | 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 | | 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 | |
| | ART | 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*.

CJ1W-ID/IA

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 Connector FCN-360C040-J2 Connector Cover | Fujitsu Connectors: CJ1W-ID231(32 inputs): 1 per Unit | C500-CE404 | |
| - | Crimped | FCN-363J040 Housing FCN-363J-AU Contactor FCN-360C040-J2 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 Connector FCN-360C024-J2 Connector Cover | | C500-CE241 | |
| 24-pin Connectors | Crimped | FCN-363J024 Socket FCN-363J-AU Contactor FCN-360C024-J2 Connector Cover | Fujitsu Connectors: CJ1W-MD231 (16 inputs, 16 outputs): 2 per Unit | C500-CE242 | |
| | Pressure welded | FCN-367J024-AU/F | | C500-CE243 | 1 |

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 | Pressure welded | FRC5-AO40-3TOS | MIL Connectors: CJ1W-ID232/233 (32 inputs): 1 per Unit CJ1W-OD232/233/234 (32 outputs):1 per Unit | XG4M-4030-T | _ |
| Connectors | Crimped | - | 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 | XG5N-401* | |
| 20-pin | Pressure welded | FRC5-AO20-3TOS | MIL Connectors: | XG4M-2030-T | |
| Connectors | Crimped | - | CJ1W-MD232/233 (16 inputs, 16 outputs): 2 per Unit | XG5N-201* | _ |

⁶ Crimp Contacts are also required. Refer to page 20 for details.

Applicable Connector-Terminal Block Conversion Units

| | | Number | Wiring | Terminal | | Size | | e Mour | | Mounting | | Common | Bleeder | | | | |
|------|--------|--------------------|--|--------------------|---------------|----------------|---------------|--------------|--------|-----------|------------|------------|--|---------------|-----------|--|--|
| Туре | Series | Number of poles | method | type | Depth (mm) | Height (mm) | Width (mm) | DIN Track | Screws | terminals | resistance | Indicators | I/O Units | Model * | Standards | | |
| | | | Phillips screw | | | | | | | | | | CJ1W-ID231 CJ1W-ID261 | XW2R-J34GD-C1 | | | |
| | | | Statement of the second se | МЗ | 50 | 48.05 | 130.7 | | | | | | CJ1W-ID232 CJ1W-ID233 CJ1W-ID262 | XW2R-J34GD-C2 | | | |
| | | | Slotted screw (rise up) | МЗ | | | | | | | | | CJ1W-ID231 CJ1W-ID261 | XW2R-E34GD-C1 | | | |
| PLCs | XW2R | 34 | | (European type) | 50 | 44.81 | 98.5 | Yes | No | No | No | 140 | CJ1W-ID232 CJ1W-ID233 CJ1W-ID262 | XW2R-E34GD-C2 | - | | |
| | | | Push-in spring | | | | | | | | | | CJ1W-ID231 CJ1W-ID261 | XW2R-P34GD-C1 | - | | |
| | | | | Clamp | 50 | 44.81 | 98.5 | | | | | | CJ1W-ID232 CJ1W-ID233 CJ1W-ID262 | XW2R-P34GD-C2 | | | |

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

* Representative models only. For details, refer to the XW2R series catalog (Cat. No. G077).

Connecting Cables for Connector-Terminal Block Conversion Units

| Appearance | Connectors | Cable lenght [m] | Model |
|------------|--|------------------|------------|
| XW2Z-DDPF | | 0.5 | XW2Z-050PF |
| | | 1 | XW2Z-100PF |
| | One 40 pin Evilter: Connector to One 40 pin Mill Connector | 1.5 | XW2Z-150PF |
| | One 40-pin Fujitsu Connector to One 40-pin MIL Connector | 2 | XW2Z-200PF |
| | | 3 | XW2Z-300PF |
| | | 5 | XW2Z-500PF |
| XW2Z-DDPM | | 0.5 | XW2Z-050PM |
| | | 1 | XW2Z-100PM |
| | | 1.5 | XW2Z-150PM |
| | One 40-pin MIL Connector to One 40-pin MIL Connector | 2 | XW2Z-200PM |
| | | 3 | XW2Z-300PM |
| | | 5 | XW2Z-500PM |

| | | | | S | pecifications | | | Size (horizontal mounting) Mo | | | Mou | nting | | |
|--|---|---------------------------------|----------------------------|------------------|------------------------------|--|---------------|-------------------------------|------------------|----------------|--------------|----------------|--|--------------------------------|
| Туре | Series | Classification | | Polarity | Number of points | Rated ON current at contacts | Rated voltage | Horizontal (mm) | Vertical (mm) | Height (mm) | DIN Track | Screws | Model | Standards |
| | | | | NPN | | | | | | | | | G70V-SID16P *4 | |
| | | Inputs | DC | PNP | 16 | 50 mA | | | | | | | G70V-SID16P-1 *4 | |
| Push-In | G70V | inputo | inputs | NPN | (SPSTNO × 16) | 00 11.7 | | | | | | | G70V-SID16P-C16 *5 | UC, CE |
| Plus | | | | PNP | | | 24 VDC | 143 | 90 | 56 | Yes | Yes | G70V-SID16P-1-C16 *5 | TÜV |
| terminal block | | | | NPN | | 6 A/point, | | | | | | | G70V-SOC16P *4 | certified) |
| | and a second | Outputs | Relay outputs | PNP | 16 (SPDT × 16) | 10 A/ | | | | | | | G70V-SOC16P-1 *4 | - |
| | | | ouipuis | NPN PNP | (SFD1 × 10) | common | | | | | | | G70V-SOC16P-C4 *6 | - |
| | | | | PINP | | | 100/(110) VAC | | | | | | G70V-SOC16P-1-C4 *6 G7TC-IA16 AC100/110 | |
| | | | AC inputs | | | | 200/(220) VAC | - | | | | | G7TC-IA16 AC100/110 | - |
| | | Inputs | | NPN | 16 | 1A | 12 VDC | 182 | | | | | G7TC-ID16 DC12 | 1 |
| | 0770 | | DC | | (SPSTNO × 16) | | 24 VDC | 102 | | | | | G7TC-ID16 DC24 | - |
| | G7TC | | inputs | | | | 100/110 VDC | - | | | | | G7TC-ID16 DC100/110 | |
| Standard | Samming | | | | 8 | | 12 VDC | | 85 | 68 | 68 Yes | No | G7TC-OC08 DC12 | U, C |
| | Common and State | | Relay | | (SPSTNO × 8) | | 24 VDC | 102 | - | | | | G7TC-OC08 DC24 | |
| | | Outputs | | NPN | 16 | F A | 12 VDC | | | | | | G7TC-OC16 DC12 | |
| | Outputs | outputs | | (SPSTNO × 16) | 5A | 24 VDC | 100 | | | | | G7TC-OC16 DC24 | | |
| | | | | PNP | 16 | | 12 VDC | 182 | | | | | G7TC-OC16-1 DC12 | |
| | | | | FINF | (SPSTNO × 16) | | 24 VDC | | | | | | G7TC-OC16-1 DC24 | |
| High- | G70A *1 (Socket only) | Inputs | Inputs PNP 16 | 16 (SPDT × 16 | 100 mA | 110 VDC max., 240 VAC max. *2 | | | | | | G70A-ZOC16-5 | U, C, CE | |
| capacity socket | | | Relay | NPN | possible with G2R Relays) | ible with 10 A (Ter- Relays) minal | 234 24 VDC | 234 | 75 | 64 | Yes | No | G70A-ZOC16-3 | (VDE certified) |
| | | Culpulo | outputs | PNP | | | | | | | | | G70A-ZOC16-4 | |
| | Vertical type G70D-V | | Relay outputs | | | 5 A or 3 A *3 | | | | | | | G70D-VSOC16 | |
| | | | MOSFET relay outputs | NPN | 16 (SPSTNO × 16) | 0.3 A | | 135 | 46 | 81 | Yes | Yes | G70D-VFOM16 | U, C, CE (VDE certified) |
| Space- | Flat type G70D | Outputs | | | 8 (SPSTNO × 8) | 5 A | 24 VDC | 68 | 93 | 44 | | | G70D-SOC08 | |
| saving | ALL | | Relay outputs | NPN | 16 (SPSTNO × 16) | 3 A | | | | | | | G70D-SOC16 | - |
| | CELEBRE . | | | PNP | 16 (SPSTNO × 16) | 3 A | | 156 | 51 | 39 | Yes | Yes | G70D-SOC16-1 | _ |
| | el minimu | | MOSFET relay | NPN | 16 | 0.3 A | - | 100 | 01 | 00 | | | G70D-FOM16 | - |
| | THUMBER | outputs PNP (SPSTNO × 16) 0.3 A | | | | | | | | G70D-FOM16-1 | 1 | | | |
| High- capacity, space- saving | G70R | Outputs | Relay outputs | NPN | 8 (SPSTNO × 8) | 10 A | 24 VDC | 136 | 93 | 55 | Yes | Yes | G70R-SOC08 *7 | _ |

Applicable I/O Relay Terminals

*1. G70A is a I/O terminal socket product. Relay is not provided with the socket. Be sure to order a relay, timer separately.

*2. Each relay to be mounted must incorporate a coil that has proper specifications within the maximum rated voltage range.
*3. Eight or fewer points ON: 5 A, Nine or more points ON: 3 A.

*4. Internal common at terminal block: No internal connections

*5. Internal common at terminal block: Internal IO common 16 points internally connected

*6. Internal common at terminal block: Every 4 points internally connected at terminal block middle row.

*7. Product no longer available to order.
Note: 1. For the combination of Input Units with I/O Relay Terminal and Connecting Cables, refer to 3. Connecting I/O Relay Terminals. 2. Please refer to each Datasheet about details.

3. When the G7TC is used with an AC rated voltage, three rated currents can be used. If a coil voltage of 110 or 220 VAC is used, 50 Hz cannot be used.

Cables for I/O Relay Terminals

| Туре | Name | I/O Classification | Appearance | Cable leng | gth L (mm) | Models |
|----------------------------------|------------------------|--------------------|---------------------------------|------------|------------|-------------------|
| | | | A side B side | 1,0 | 000 | XW2Z-R100C |
| | Cables with Connectors | | Device end I/O Relay Terminal | 1,5 | 500 | XW2Z-R150C |
| Fujitsu connectors (24 pins) | (1:1) | 16 I/O points | | 2,000 | | XW2Z-R200C |
| | XW2Z-R□C | | | 3,000 | | XW2Z-R300C |
| | | | L | 5,0 | 000 | XW2Z-R500C |
| | | | | (A) 1,000 | (B) 750 | XW2Z-RI100C-75 |
| | | | A side B side | (A) 1,500 | (B) 1,250 | XW2Z-RI150C-125 |
| | | 32 input points | Device end I/O Relay Terminal | (A) 2,000 | (B) 1,750 | XW2Z-RI200C-175 |
| | Cables with Connectors | | | (A) 3,000 | (B) 2,750 | XW2Z-RI300C-275 |
| - ujitsu connectors (40 pins) | (1:2) | | | (A) 5,000 | (B) 4,750 | XW2Z-RI500C-475 |
| | XW2Z-RI□C-□ | | | (A) 1,000 | (B) 750 | XW2Z-RO100C-75 |
| | XW2Z-RO□C-□ | | | (A) 1,500 | (B) 1,250 | XW2Z-RO150C-125 |
| | | 32 output points | (B) | (A) 2,000 | (B) 1,750 | XW2Z-RO200C-175 |
| | | | Straight length (without bends) | (A) 3,000 | (B) 2,750 | XW2Z-RO300C-275 |
| | | | | (A) 5,000 | (B) 4,750 | XW2Z-RO500C-475 |
| | Cables with Connectors | | A side B side | 2 | 50 | XW2Z-RI25C |
| (III) (00 i | (1:1) XW2Z-RI□C | 16 I/O points | Device end I/O Relay Terminal | 50 | 00 | XW2Z-RI50C |
| AIL connectors (20 pins) | | | | 2 | 50 | XW2Z-RO25C |
| | XW2Z-RO□C | | L | 500 | | XW2Z-RO50C |
| | | | | (A) 500 | (B) 250 | XW2Z-RO50-25-D1 |
| | | | | (A) 750 | (B) 500 | XW2Z-RO75-50-D1 |
| | | | | (A) 1,000 | (B) 750 | XW2Z-RO100-75-D1 |
| | | | A side B side | (A) 1,500 | (B) 1,250 | XW2Z-RO150-125-D1 |
| | | | Device end I/O Relay Terminal | (A) 2,000 | (B) 1,750 | XW2Z-RO200-175-D1 |
| | Cables with Connectors | | (A) | (A) 3,000 | (B) 2,750 | XW2Z-RO300-275-D1 |
| /IL connectors (40 pins) | (1:2) | 32 I/O points | | (A) 5,000 | (B) 4,750 | XW2Z-RO500-475-D1 |
| | XW2Z-RO□-□-D1, | | | (A) 500 | (B) 250 | XW2Z-RI50-25-D1 |
| | XW2Z-RI□-□-D1 | | | (A) 750 | (B) 500 | XW2Z-RI75-50-D1 |
| | | | (B) | (A) 1,000 | (B) 750 | XW2Z-RI100-75-D1 |
| | | | Straight length (without bends) | (A) 1,500 | (B) 1,250 | XW2Z-RI150-125-D1 |
| | | | | (A) 2,000 | (B) 1,750 | XW2Z-RI200-175-D1 |
| | | | | (A) 3,000 | (B) 2,750 | XW2Z-RI300-275-D1 |
| | | | | (A) 5,000 | (B) 4,750 | XW2Z-RI500-475-D1 |

Note: Refer to the Datasheet for the XW2Z-R Cables for I/O Relay Terminals (Cat. No. G126).

Mountable Racks

| | NJ s | /stem | CJ system | (CJ1, CJ2) | CP1H system | NSJ s | NSJ system | |
|------------|----------|-------------------------------------|-----------|--|---------------|----------------|--|--|
| Model | CPU Rack | Expansion Rack | CPU Rack | Expansion Backplane | CP1H PLC | NSJ Controller | Expansion Backplane | |
| CJ1W-ID201 | | | | | | | | |
| CJ1W-ID211 | | | 10 Units | 10 Units (per Expansion Backplane) | Not supported | Not supported | 10 Units (per Expansion Backplane) | |
| CJ1W-ID212 | | 10 Units (per Expansion Rack) | | | | | | |
| CJ1W-ID231 | | | | | | | | |
| CJ1W-ID232 | 10 Units | | | | | | | |
| CJ1W-ID233 | TO Units | | | | | | | |
| CJ1W-ID261 | | | | | | | | |
| CJ1W-ID262 | | | | | | | | |
| CJ1W-IA201 | | | | | | | | |
| CJ1W-IA111 | 1 | | | | | | | |

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 κΩ | | | | | | | |
| 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 Ω min. 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 2.4 kΩ Jxx_Ch1_ln00 0 O O | | | | | | | |
| External connection and terminal-device variable diagram | Polarity of the input power supply can be connected in either direction. Polarity of the imput 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. | | | | | | | |

*1. 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.

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)

| 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 M Ω min. 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 to Jxx_Ch1_In15 COM COM 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. The device variable names are the names that use "Jxx" as the device name. |
| External connection and terminal-device variable diagram | Signal <u>pin 2</u> Signal <u>name</u> Signal <u>pin 2</u> Signal <u>name</u> Jxx_Ch1_In00 A0 B0 Jxx_Ch1_In01 Jxx_Ch1_In02 A1 B1 Jxx_Ch1_In03 Jxx_Ch1_In04 A2 B2 Jxx_Ch1_In05 Jxx_Ch1_In06 A3 B3 Jxx_Ch1_In07 Jxx_Ch1_In08 A4 B4 Jxx_Ch1_In07 |

*1. 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 |
| nput Impedance | 3.3 kΩ |
| nput 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 M Ω min. 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 | 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 name Connector Signal name Signal name Connector Signal name O Jxx_Ch1_In00 A0 B0 Jxx_Ch1_In01 O O Jxx_Ch1_In02 A1 B1 Jxx_Ch1_In03 O Jxx_Ch1_In04 A2 B2 Jxx_Ch1_In05 Jxx_Ch1_In08 A3 B3 Jxx_Ch1_In07 O Jxx_Ch1_In08 A4 B4 Jxx_Ch1_In09 O O Jxx_Ch1_In10 A5 B5 Jxx_Ch1_In12 A6 B6 Jxx_Ch1_In13 O Jxx_Ch1_In14 A7 B7 Jxx_Ch1_In15 O M88 COM |

*1. 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 Ω min. 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 | Allocated Signal ClO word Name Connector row A Connector Connector Wd m Jux_Ch1_Into Como Comector Wd m Jux_Ch2_Into Como Comector Wd m Jux_Ch2_Into Como Comector Tow B Comector Tow B Comector Comector Tow B Comector | | | | | | | |
| External connection and terminal-device variable diagram | Signal Connec-Signal Allocated CIO word CIO WI CIO WI CIO WI CIO WI CIO WI CIO WI CIO WI CIO CIO WI CIO CIO CIO CIO CIO CIO CIO CIO CIO CIO | | | | | | | |

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

| Name | 32-point DC Input Unit with MIL Connector | | |
|---|--|--|--|
| lodel | CJ1W-ID232 | | |
| ated Input Voltage | 24 VDC | | |
| ated Input Voltage Range | 20.4 to 26.4 VDC | | |
| put Impedance | 5.6 kΩ | | |
| put Current | 4.1 mA typical (at 24 VDC) | | |
| N Voltage/ON Current | 19.0 VDC min./3 mA min. | | |
| OFF Voltage/OFF current | 5 VDC max./1 mA max. | | |
| N Response Time | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * | | |
| FF Response Time | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * | | |
| umber of Circuits | 32 (16 points/common, 2 circuits) | | |
| umber of Simultaneously N Points | 75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.) | | |
| sulation Resistance | $20 \text{ M}\Omega$ min. between external terminals and the GR terminal (100 VDC) | | |
| ielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | | |
| ternal Current Consumption | 90 mA max. | | |
| /eight | | | |
| - | 70 g max. | | |
| ccessories | None | | |
| ircuit Configuration | Connector row A Connector row B Connector row | | |
| xternal connection nd terminal-device ariable diagram | Allocates CIO word $ \begin{array}{c} $ | | |
| | 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. 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 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)

| Name | 32-point DC Input Unit with MIL Connector | | |
|--|---|--|--|
| Model | CJ1W-ID233 | | |
| Rated Input Voltage | | | |
| 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 ON Response Time | 5 VDC max./1 mA max. 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 | 32 (16 points/common, 2 circuits) | | |
| ON Points | 75% (12 points/common) simultaneously ON (at 24 VDC) (Refer to the following illustration.) | | |
| nsulation Resistance | 20 M Ω min. 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 | 200 mA max. | | |
| Weight | 70 g max. | | |
| Accessories | None | | |
| | Allocated Signal | | |
| Circuit Configuration | Connector row A Connector row B Connector row B Connector Connector row B Connector Connector row B Connector | | |
| External connection and terminal-device variable diagram | Allocated ClO word Signal name Connec- tor pin Signal name Allocated ClO word 24 VDC NC 1 2 NC COM1 3 4 COM1 3 4 COM1 3 4 COM1 3 4 COM1 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 44 (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. | | |

* 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.

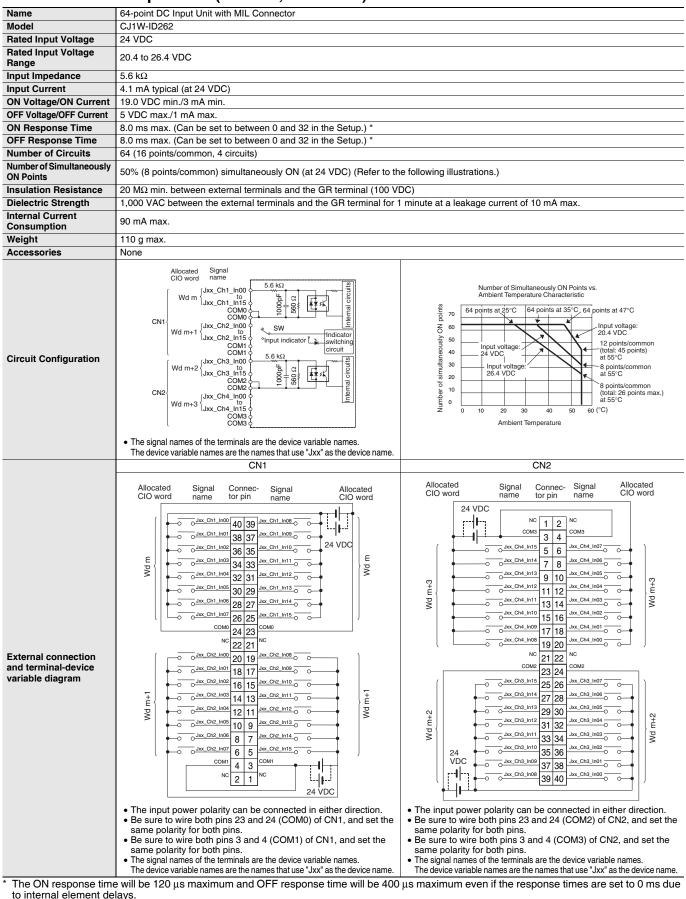
CJ1W-ID261 DC Input Unit (24 VDC, 64 Points)

| Name | 64-point DC Input Unit with Fujitsu Connector | | |
|--|--|--|--|
| Model | CJ1W-ID261 | | |
| Rated Input Voltage | 24 VDC 20.4 to 26.4 VDC | | |
| Rated Input Voltage Range | 20.4 to 26.4 vDC | | |
| Input Impedance | 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 | he following illustrations.) | |
| Insulation Resistance | 20 M Ω min. between external terminals and the GR terminal (100 VE | DC) | |
| 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 | CN1 CN1 CN1 CN1 CN1 CN1 Connector row A CN2 CN2 CN2 CN2 CN2 CN2 CN1 Connector row B CN1 CONN CO | 64 points at 35°C 10 points at 35°C 12 points/common at 55°C 10 points/common at 55°C | |
| | The device variable names are the names that use "Jxx" as the device name. CN1 | CN2 | |
| External connection and terminal-device variable diagram | Allocated CIO word Allocated CIO word NC Bignal NC Com Bignal NC Com NC NC Co | Allocated CIO word CIO word CIO word CIO word CIO word CIO word CIO word CIO word CIO word Allocated CIO word Allocated Allocachalnin Allocacha | |

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)



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 Ω min. 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 O.15 μF COM 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 | Connec- tor pin ? 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_In02 NC A4 B4 Jxx_Ch1_In04 NC A5 B5 Jxx_Ch1_In05 NC A6 B6 Jxx_Ch1_In07 NC A8 B8 COM | | |

*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 55 ms maximum 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.

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

CJ1W-IA111 AC Input Unit (100 VAC, 16 points)

| Model | 16-point AC Input Unit with Terminal Block | | |
|--|---|--|--|
| | CJ1W-IA111 | | |
| nated input voltage | 100 to 120 VAC 50/60 Hz *2 | | |
| Rated Input Voltage Range | 15 to 132 VAC | | |
| Input Impedance | 4.5 kΩ (50 Hz), 12 kΩ (60 Hz) | | |
| | mA typical (at 100 VAC, 50 Hz), mA typical (at 100 VAC, 60 Hz) | | |
| ON Voltage/ON Current | 0 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 | | |
| | 16 (16 points/common, 1 circuit) | | |
| Simultaneously | 100% simultaneously ON (16 points/common) | | |
| | 20 M Ω min. between external terminals and the GR terminal (500 VDC) | | |
| - | 2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | | |
| Consumption | 90 mA max. | | |
| - | 130 g max. | | |
| Accessories | None | | |
| Circuit Layout | Signal name Input indicator Jxx_Ch1_In00 Jxx_Ch1_In15 0.22 µF 270 Ω 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 connector pints Signal 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 55 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 | | Circul 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) |
| Wd m (Input) | 00 | IN0/Jxx_Ch1_In00 |
| | 01 | IN1/Jxx_Ch1_In01 |
| | : | : |
| | 14 | IN14/Jxx_Ch1_In14 |
| | 15 | IN15/Jxx_Ch1_In15 |

64-point Input Unit

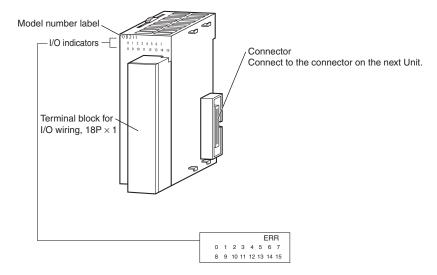
| Allocate | | |
|-------------------|-----|---------------------|
| CIO | Bit | Signal name (CJ/NJ) |
| | 00 | IN0/Jxx_Ch1_In00 |
| | 01 | IN1/Jxx_Ch1_In01 |
| Wd m (Input) | : | : |
| (input) | 14 | IN14/Jxx_Ch1_In14 |
| | 15 | IN15/Jxx_Ch1_In15 |
| | 00 | IN0/Jxx_Ch2_In00 |
| | 01 | IN1/Jxx_Ch2_In01 |
| Wd m+1 (Input) | : | : |
| (input) | 14 | IN14/Jxx_Ch2_In14 |
| | 15 | IN15/Jxx_Ch2_In15 |
| | 00 | IN0/Jxx_Ch3_In00 |
| | 01 | IN1/Jxx_Ch3_In01 |
| Wd m+2 (Input) | : | : |
| (input) | 14 | IN14/Jxx_Ch3_In14 |
| | 15 | IN15/Jxx_Ch3_In15 |
| | 00 | IN0/Jxx_Ch4_In00 |
| | 01 | IN1/Jxx_Ch4_In01 |
| Wd m+3 (Input) | : | : |
| (input) | 14 | IN14/Jxx_Ch4_In14 |
| | 15 | IN15/Jxx_Ch4_In15 |

32-point Input Unit

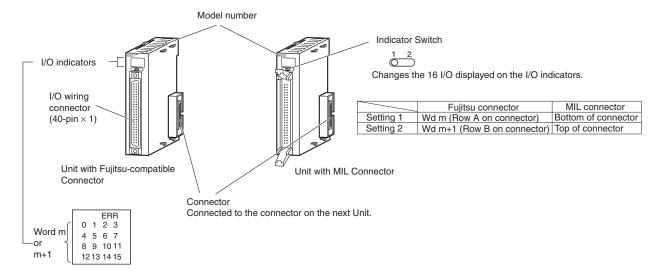
| Allocated CIO word | | Signal name (CJ/NJ) |
|--------------------|-----|---------------------|
| CIO | Bit | Signal name (CJ/NJ) |
| | 00 | IN0/Jxx_Ch1_In00 |
| | 01 | IN1/Jxx_Ch1_In01 |
| Wd m (Input) | : | : |
| (| 14 | IN14/Jxx_Ch1_In14 |
| | 15 | IN15/Jxx_Ch1_In15 |
| | 00 | IN0/Jxx_Ch2_In00 |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

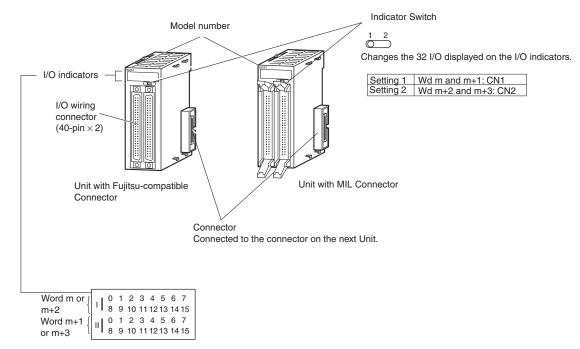
External Interface

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 ²) |

Crimp terminals

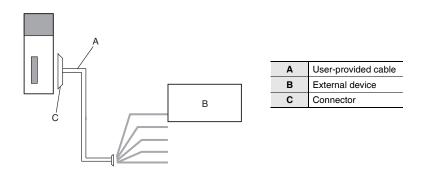
Use crimp terminals (M3) having the dimensions shown below.



I/O Unit Wiring Methods

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

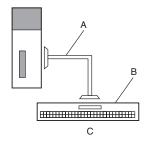
- 1. User-provided Cable
- An I/O Unit can be directly connected to an external device by using a connector.



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 or push-in terminal block makes it easy to connect external devices.

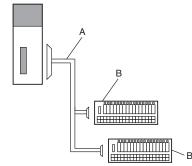


| Α | Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z |
|---|--|
| в | Connector-Terminal Block Conversion Unit XW2R |
| С | Conversion to a screw terminal block |
| | |

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.



| I/O Relay Terminals G70V, G7TC Relay Terminals G70D, G70R I/O Terminal Socket G70A Or. conversion to relay outputs and AC inputs. | Α | Connecting Cable for I/O Relay Terminals XW2Z-R |
|---|---|--|
| -, | В | G70V, G7TC Relay Terminals G70D, G70R I/O Terminal Socket |

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 *1 | FRC5-A040-3T0S |
| | 40 | XG5N-401 *2 | HU-40OS2-001 |
| Crimped | - | Crimp Contacts for XG5N *3 XG5W-0232 (loose contacts: 100 pieces) XG5W-0232-R (reel contacts: 10,000 pieces) | HU-111S |

*1. Socket and Stain Relief set.

*2. Crimp Contacts (XG5W-0232) are sold separately.

*3. Applicable wire size is AWG 28 to 24. For applicable conductor construction and more information, visit the OMRON website at www.ia.omron.com.

Wire Size

We recommend using cable with wire gauges of AWG 28 to 24 (0.08 to 0.2 mm²). Use cable with external wire diameters of 1.61 mm max.

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 tools for OMRON MIL connectors.

Tools for Pressure-welded Connectors (OMRON)

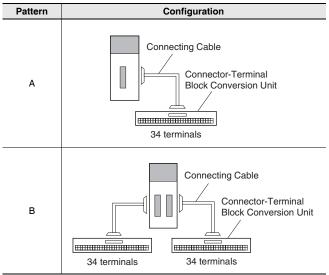
| Product Name | Model |
|-----------------------|-----------|
| Pressure-welding Tool | XY2B-0002 |
| Attachment | XY2B-1007 |

Tools for Crimped Connectors (OMRON)

| Product Name | Model |
|----------------------|-----------|
| Manual Crimping Tool | XY2B-7007 |

2. Connecting Connector-Terminal Block Conversion Units

Connection Patterns for Connector-Terminal Block Conversion Units



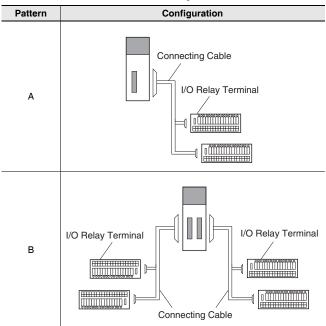
Combination of I/O Units with Connector-Terminal Block Conversion Units

| Unit | I/O capacity | Number of connectors | Polarity | Connection pattern | Connecting Cable * | Connector-Terminal Block Conversion Unit | Wiring method | Common terminals | | | | | | | |
|------------|--|----------------------------------|-----------|--------------------|-----------------------|---|-------------------------|------------------|----------------------|-------------------------|-------------------------|----------------|---------------|-------------------------|----|
| | | | | | | XW2R-J34GD-C1 | Phillips screw | | | | | | | | |
| CJ1W-ID231 | 32 inputs | 1 Fujitsu connector | NPN/PNP | А | XW2Z-DDDPF | XW2R-E34GD-C1 | Slotted screw (rise up) | No | | | | | | | |
| | | | | | | XW2R-P34GD-C1 | Push-in spring | | | | | | | | |
| | | | | | | XW2R-J34GD-C2 | Phillips screw | | | | | | | | |
| CJ1W-ID232 | 32 inputs | 1 MIL connector | NPN/PNP | A | XW2Z-DDDPM | XW2R-E34GD-C2 | Slotted screw (rise up) | No | | | | | | | |
| | | 0011100101 | | | | | XW2R-P34GD-C2 | Push-in spring | 1 | | | | | | |
| | | | | | | XW2R-J34GD-C2 | Phillips screw | | | | | | | | |
| CJ1W-ID233 | CJ1W-ID233 32 inputs 1 MIL connector NPN | 32 inputs | uts 1 MIL | 19 | | | | | | NPN/PNP | А | XW2Z-DDDPM | XW2R-E34GD-C2 | Slotted screw (rise up) | No |
| | | | | | XW2R-P34GD-C2 | Push-in spring | | | | | | | | | |
| | | | | | | XW2R-J34GD-C1 (2 Units) | Phillips screw | | | | | | | | |
| CJ1W-ID261 | 64 inputs | 2 Fujitsu connectors | NPN/PNP B | NPN/PNP | NPN/PNP | NPN/PNP | NPN/PNP | в | XW2Z-DDPF (2 pcs) | XW2R-E34GD-C1 (2 Units) | Slotted screw (rise up) | No | | | |
| | | connectore | | | | | | 1 | | (2 000) | XW2R-P34GD-C1 (2 Units) | Push-in spring | | | |
| | 11W-ID262 64 inputs | 4 inputs 2 MIL connectors NPN/PN | | | | XW2R-J34GD-C2 (2 Units) | Phillips screw | | | | | | | | |
| CJ1W-ID262 | | | NPN/PNP | в | XW2Z-□□PM (2 pcs) | XW2R-E34GD-C2 (2 Units) | Slotted screw (rise up) | No | | | | | | | |
| | | | | (2 | | (= poo) | XW2R-P34GD-C2 (2 Units) | Push-in spring | 1 | | | | | | |

The box □ is replaced by the cable length.
 Note: For details, refer to the XW2R series catalog (Cat. No. G077).

3. Connecting I/O Relay Terminals

Connection Patterns for I/O Relay Terminals



Combination of I/O Units with I/O Relay Terminals and Connecting Cables

| | I/O Units | | I/O Units Connection Connecting Cables | | | | | I/O Relay Terminals | | | |
|------------|-----------------|---|--|-----------|--------------|----------------------|--------------------------|---------------------|----------------------|------------------|----|
| Model | I/O capacity | External connectors | Polarity | pattern | Model *1 | Quantity required | Model | I/O points | Quantity required | Wiring method | |
| | | 1 Fujitsu | Sinking/ | | | | G70V-SID16P(-1)(-C16) *2 | 16 | | Push-in spring | |
| CJ1W-ID231 | 32 inputs | connector | Sourcing | A | XW2Z-RI□C-□ | 1 | G7TC-ID/IA16 | 16 | 2 | Screw terminal | |
| | | (40 p) | (NPN/PNP) | | | | G70A-ZIM16-5 *3 | 16 | | Screw terminar | |
| | | 1 MIL | Sinking/ | | | | G70V-SID16P(-1)(-C16) *2 | 16 | | Push-in spring | |
| CJ1W-ID232 | 32 inputs c | | Sourcing | Α | XW2Z-RO -D1 | 1 | G7TC-ID/IA16 | 16 | 2 | | |
| | | | (NPN/PNP) | | | | G70A-ZIM16-5 | 16 | | Screw terminal | |
| | | 1 MIL connector (40 p) Sourcing (NPN/PNP) | Sinking/ | | | | G70V-SID16P(-1)(-C16) *2 | 16 | | Push-in spring | |
| CJ1W-ID233 | 32 inputs | | • | Α | XW2Z-RO -D1 | 1 | G7TC-ID/IA16 | 16 | 2 | Screw terminal | |
| | | | | (NPN/PNP) | (NPN/PNP) | (NPN/PNP) | | | | G70A-ZIM16-5*3 | 16 |
| | | connectors Sou | Sinking/ | | | | G70V-SID16P(-1)(-C16) *2 | 16 | | Push-in spring | |
| CJ1W-ID261 | 64 inputs cor | | uts connectors | | G7TC-ID/IA16 | 16 | 4 | | | | |
| | | | | (NPN/PNP) | (NPN/PNP) | | | | G70A-ZIM16-5 *3 | 16 | |
| | | 5 | Sinking/ | | | | G70V-SID16P(-1)(-C16) *2 | 16 | | Push-in spring | |
| CJ1W-ID262 | | | | В | XW2Z-RO -D1 | 2 | G7TC-ID/IA16 | 16 | 4 | | |
| | | | (NPN/PNP) | | | | G70A-ZIM16-5 *3 | 16 | | Screw terminal | |

*1. The box \Box is replaced by the cable length.

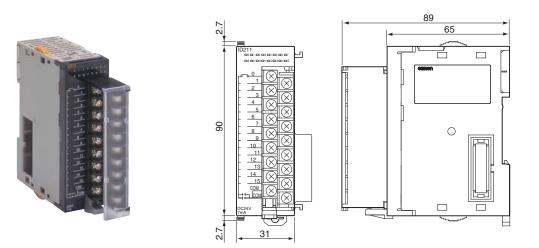
*2. Either NPN inputs or PNP inputs can be used.

*3. G70A-ZIM16-5 is a I/O terminal socket products. Relay is not provided with the socket. Be sure to order a relay, timer separetely. (with G2R Relays mounted: SPDT × 16)

Dimensions

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

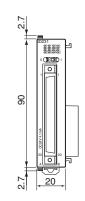
CJ1W-ID201 CJ1W-ID211 CJ1W-ID212 CJ1W-IA201 CJ1W-IA111

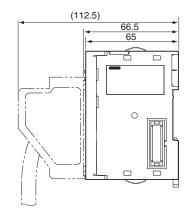


32-point Units (Input Units)

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

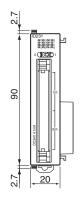


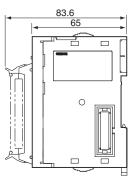




With MIL Connector (40-pin \times 1) CJ1W-ID232 CJ1W-ID233





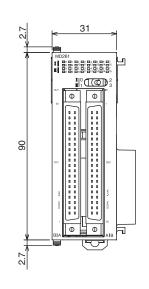


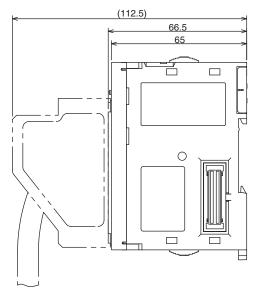
(Unit: mm)

64-point Units (Input Units)

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

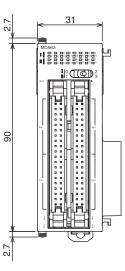


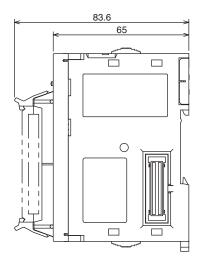




With MIL Connector (40-pin \times 2) CJ1W-ID262







Related Manuals

| Name | Cat. No. | Contents |
|--|----------|---|
| CJ-series CJ2 CPU Unit Hardware User's Manual CJ2H-CPU6□-EIP CJ2H-CPU6□ CJ2M-CPU0□ | 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 <i>Software User's Manual</i> (W473). |
| SYSMAC CJ Series CJ1H-CPU H-R, CJ1G/H-CPU H, CJ1G-CPU P, CJ1G-CPU C, 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 <i>Software User's Manual</i> (Cat. No. W501). |

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