

# CJ-series Mixed I/O Units

## CJ1W-MD

CSM\_CJ1W-MD\_DS\_E\_9\_11

### A Wide Range of Basic Mixed I/O Units for Different Applications and Wiring Methods

- One Mixed I/O Unit has connectors for both inputs and outputs. Use Mixed I/O Units to easily build space-saving systems.



CJ1W-MD231



CJ1W-MD261



CJ1W-MD563

### Features

- Select the best interface for each application: Fujitsu / OTAX connectors and MIL connectors.
- Select sinking outputs or sourcing outputs. The CJ1W-MD232 has load short-circuit protection.
- The ON and OFF response times can be set to between 0 and 32 ms in the Setup in the CPU Unit.
- Mixed I/O Units with 5-V TTL inputs are also available. \*
- A wide variety of Connector-Terminal Block Conversion Units are available to allow you to easily wire external I/O devices.


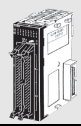
\* Applies to the CJ1W-MD563.

## 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.

### Mixed I/O Units

| Unit type           | Product name   | Specifications |            |  |                     |                          |                        | Current consumption (A) |      | Model      | Standards     |
|---------------------|--|----------------|------------|--|---------------------|--------------------------|------------------------|-------------------------|------|------------|---------------|
|                     |  | Output type    | I/O points | Input voltage, Input current<br>Maximum switching capacity | Commons             | External connection      | No. of words allocated | 5 V                     | 24 V |            |               |
| CJ1 Basic I/O Units | DC Input/ Transistor Output Units<br> | Sinking        | 16 inputs  | 24 VDC, 7 mA   | 16 points, 1 common | Fujitsu / OTAX connector | 2 words                | 0.13                    | –    | CJ1W-MD231 | UC1, N, CE    |
|                     |  |                | 16 outputs | 250 VAC/24 VDC, 0.5 A                                      | 16 points, 1 common |                          |                        |                         |      |            |               |
|                     |  | Sinking        | 16 inputs  | 24 VDC, 7 mA   | 16 points, 1 common | MIL connector            | 2 words                | 0.13                    | –    | CJ1W-MD233 |               |
|                     |  |                | 16 outputs | 12 to 24 VDC, 0.5 A  | 16 points, 1 common |                          |                        |                         |      |            |               |
|                     |  | Sinking        | 32 inputs  | 24 VDC, 4.1 mA   | 16 points, 1 common | Fujitsu / OTAX connector | 4 words                | 0.14                    | –    | CJ1W-MD261 | UC1, N, CE    |
|                     |  |                | 32 outputs | 12 to 24 VDC, 0.3 A  | 16 points, 1 common |                          |                        |                         |      |            |               |
|                     | TTL I/O Units<br>                   | Sinking        | 32 inputs  | 24 VDC, 4.1 mA   | 16 points, 1 common | MIL connector            | 4 words                | 0.14                    | –    | CJ1W-MD263 |               |
|                     |  |                | 32 outputs | 12 to 24 VDC, 0.3 A  | 16 points, 1 common |                          |                        |                         |      |            |               |
|                     |  | Sourcing       | 16 inputs  | 24 VDC, 7 mA   | 16 points, 1 common | MIL connector            | 2 words                | 0.13                    | –    | CJ1W-MD232 | UC1, N, L, CE |
|                     |  |                | 16 outputs | 24 VDC, 0.5 A<br>Short-circuit protection                  | 16 points, 1 common |                          |                        |                         |      |            |               |

### 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 / OTAX 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 Connectors | Soldered        | Connector<br>Connector Cover<br>Fujitsu FCN-361J040-AU<br>Fujitsu FCN-360C040-J2<br>OTAX N360C040J2  | Fujitsu / OTAX Connectors:<br>CJ1W-ID231(32 inputs): 1 per Unit<br>CJ1W-ID261 (64 inputs): 2 per Unit<br>CJ1W-OD231 (32 outputs): 1 per Unit<br>CJ1W-OD261 (64 outputs): 2 per Unit<br>CJ1W-MD261 (32 inputs, 32 outputs): 2 per Unit | C500-CE404 | –         |
|                   | Crimped         | Housing<br>Contact<br>Connector Cover<br>Fujitsu FCN-363J040<br>Fujitsu FCN-363J-AU<br>OTAX N363JAU<br>Fujitsu FCN-360C040-J2<br>OTAX N360C040J2                 |   | C500-CE405 |           |
|                   | Pressure welded | Fujitsu FCN-367J040-AU/F   |   | C500-CE403 |           |
| 24-pin Connectors | Soldered        | Connector<br>Connector Cover<br>Fujitsu FCN-361J024-AU<br>Fujitsu FCN-360C024-J2<br>OTAX N360C024J2  | Fujitsu / OTAX Connectors:<br>CJ1W-MD231 (16 inputs, 16 outputs): 2 per Unit  | C500-CE241 | –         |
|                   | Crimped         | Socket<br>Contact<br>Connector Cover<br>Fujitsu FCN-363J024<br>OTAX N363J024<br>Fujitsu FCN-363J-AU<br>OTAX N363JAU<br>Fujitsu FCN-360C024-J2<br>OTAX N360C024J2 |   | C500-CE242 |           |
|                   | Pressure welded | Fujitsu FCN-367J024-AU/F<br>OTAX N367J024AUF   |   | 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        | Applicable Units  | Model       | Standards |
|-------------------|-----------------|----------------|---|-------------|-----------|
| 40-pin Connectors | Pressure welded | FRC5-AO40-3TOS | MIL Connectors:<br>CJ1W-ID232 (32 inputs): 1 per Unit<br>CJ1W-OD232/233 (32 outputs): 1 per Unit<br>CJ1W-ID262 (64 inputs): 2 per Unit<br>CJ1W-OD262/263 (64 outputs): 2 per Unit<br>CJ1W-MD263/563 (32 inputs, 32 outputs): 2 per Unit | XG4M-4030-T | –         |
|                   | Crimped         | –              |   | XG5N-401*   |           |
| 20-pin Connectors | Pressure welded | FRC5-AO20-3TOS | MIL Connectors:<br>CJ1W-MD232/233 (16 inputs, 16 outputs): 2 per Unit   | XG4M-2030-T | –         |
|                   | Crimped         | –              |   | XG5N-201*   |           |

\* Crimp Contacts are also required. Refer to page 22 for details.

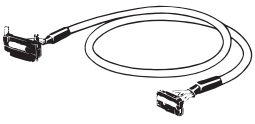
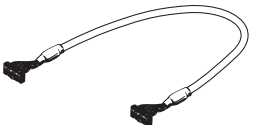
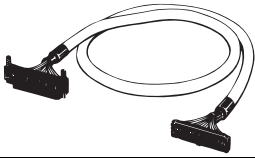
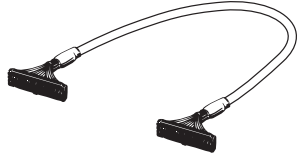
## Applicable Connector-Terminal Block Conversion Units

| Type                         | Series | Number of connector poles | Number of terminal block poles | Wiring method   | Terminal type | Size       |             |            | Mounting  |        | Common terminals   | I/O Units  | Model *   | Standards |      |       |                          |                  |      |    |       |   |  |  |  |                          |                   |  |
|------------------------------|--------|---------------------------|--------------------------------|---|---------------|------------|-------------|------------|-----------|--------|--|--|---|-----------|------|-------|--------------------------|------------------|------|----|-------|---|--|--|--|--------------------------|-------------------|--|
|                              |        |                           |                                |   |               | Depth (mm) | Height (mm) | Width (mm) | DIN Track | Screws |  |  |   |           |      |       |                          |                  |      |    |       |   |  |  |  |                          |                   |  |
| General purpose devices, PLC | XW2K   | 20                        | 20                             | Push-In Plus<br> | Spring        | 56         | 39          | 40.8       | No        | ---    | No   | CJ1W-MD231<br>CJ1W-MD232<br>CJ1W-MD233               | XW2K-20G-T                                      | ---       |      |       |                          |                  |      |    |       |   |  |  |  |                          |                   |  |
|                              |        | 40                        | 36                             |   |               | 75         | 39          | 40.8       |           |        |  | CJ1W-MD261<br>CJ1W-MD261<br>CJ1W-MD263<br>CJ1W-MD563 | XW2K-40G-O32A<br>XW2K-40G-O32B<br>XW2K-40G-O32C |           |      |       |                          |                  |      |    |       |   |  |  |  |                          |                   |  |
|                              |        |                           |                                | 20  |               |            |             |            |           |        |  | 54   | 75  |           | 52.7 | 40.8  | CJ1W-MD231<br>CJ1W-MD233 | XW2K-20G-O16A-IN |      |    |       |   |  |  |  |                          |                   |  |
|                              |        |                           |                                |   |               |            |             |            |           |        |  |  |   |           |      |       | 20                       | 36               | 75   | 39 | 40.8  | CJ1W-MD231<br>CJ1W-MD233  | XW2K-20G-O16B-OUT  |  |  |                          |                   |  |
|                              |        |                           |                                |   |               |            |             |            |           |        | 40   |  |   |           |      |       |                          |                  |      |    |       | 102   | 124  | 52.7   | 40.8   | CJ1W-MD261               | XW2K-40G-O32A-IN  |  |
|                              |        | 40                        | 68                             |   |               | 124        | 39          | 40.8       |           |        |  |  |   |           |      |       |                          |                  |      |    |       |   |  |  |  | CJ1W-MD261               | XW2K-40G-O32B-OUT |  |
|                              |        |                           |                                | 40  |               |            |             |            |           |        |  | 102  | 124   |           | 52.7 | 40.8  |                          |                  |      |    |       |   |  |  |  | CJ1W-MD263<br>CJ1W-MD563 | XW2K-40G-O32C-IN  |  |
|                              |        |                           |                                |   |               |            |             |            |           |        |  |  |   |           |      |       | 40                       | 68               | 124  | 39 | 40.8  |   |  |  |  | CJ1W-MD263<br>CJ1W-MD563 | XW2K-40G-O32C-OUT |  |
|                              | XW2R   |                           |                                |   | 20            |            |             |            |           |        | 20   |  |   |           |      |       |                          |                  |      |    |       | Phillips screw<br> | M3   | 81.7   | 50   | 48.05                    | No                | CJ1W-MD231<br>CJ1W-MD232<br>CJ1W-MD233<br>CJ1W-MD261<br>CJ1W-MD261<br>CJ1W-MD263<br>CJ1W-MD563<br>CJ1W-MD263<br>CJ1W-MD563 |
|                              |        | 40                        | 34                             |   | 130.7         | 50         | 48.05       | No         |           |        | CJ1W-MD231<br>CJ1W-MD232<br>CJ1W-MD233<br>CJ1W-MD261<br>CJ1W-MD261<br>CJ1W-MD263<br>CJ1W-MD563<br>CJ1W-MD263<br>CJ1W-MD563 |  |   |           |      |       |                          |                  |      |    |       |   |  | XW2R-E20GD-T<br>XW2R-E34GD-C1<br>XW2R-E34GD-C3<br>XW2R-E34GD-C2<br>XW2R-E34GD-C4 |  |                          |                   |  |
|                              |        |                           |                                | 20  |               |            |             |            |           |        |  | 20   | 64.4  |           | 50   | 48.05 |                          |                  |      |    |       | No  | CJ1W-MD231<br>CJ1W-MD232<br>CJ1W-MD233<br>CJ1W-MD261<br>CJ1W-MD261<br>CJ1W-MD263<br>CJ1W-MD563<br>CJ1W-MD263<br>CJ1W-MD563 |  | XW2R-E20GD-T<br>XW2R-E34GD-C1<br>XW2R-E34GD-C3<br>XW2R-E34GD-C2<br>XW2R-E34GD-C4 |                          |                   |  |
|                              |        |                           |                                |   |               |            |             |            |           |        |  |  |   |           |      |       | 40                       | 34               | 98.5 | 50 | 48.05 |   |  |  |  | No                       |                   |  |





**Note:** For the combination of I/O Units with Connector-Terminal Block Conversion Units, refer to 2. *Connecting Connector-Terminal Block Conversion Units*.

\* Representative models only. For details, refer to the XW2K series Datasheet (Cat. No. G152) and XW2R series catalog (Cat. No. G077).

## Connecting Cables for Connector-Terminal Block Conversion Units

| Appearance   | Connectors   | Cable length [m] | Model     |
|--|--|------------------|-----------|
| XW2Z-□□□A<br>   | One 24-pin Fujitsu Connector to One 20-pin MIL Connector | 0.5              | XW2Z-050A |
|  |  | 1                | XW2Z-100A |
|  |  | 1.5              | XW2Z-150A |
|  |  | 2                | XW2Z-200A |
|  |  | 3                | XW2Z-300A |
|  |  | 5                | XW2Z-500A |
|  |  | 7                | XW2Z-700A |
|  |  | 10               | XW2Z-010A |
|  |  | 15               | XW2Z-15MA |
|  |  | 20               | XW2Z-20MA |
| XW2Z-□□□X<br>   | One 20-pin MIL Connector to One 20-pin MIL Connector     | 0.5              | XW2Z-C50X |
|  |  | 1                | XW2Z-100X |
|  |  | 2                | XW2Z-200X |
|  |  | 3                | XW2Z-300X |
|  |  | 5                | XW2Z-500X |
| XW2Z-□□□B<br>   | One 40-pin Fujitsu Connector to One 40-pin MIL Connector | 0.5              | XW2Z-050B |
|  |  | 1                | XW2Z-100B |
|  |  | 1.5              | XW2Z-150B |
|  |  | 2                | XW2Z-200B |
|  |  | 3                | XW2Z-300B |
| XW2Z-□□□K<br> | One 40-pin MIL Connector to One 40-pin MIL Connector     | 0.5              | XW2Z-C50K |
|  |  | 1                | XW2Z-100K |
|  |  | 1.5              | XW2Z-150K |
|  |  | 2                | XW2Z-200K |
|  |  | 3                | XW2Z-300K |
|  |  | 5                | XW2Z-500K |

## Applicable I/O Relay Terminals

| Type  | Series  | Specifications       |               |  |                  |                              |                     | Size (horizontal mounting) |               |             | Mounting         |        | Model                                   | Standards              |                 |                               |        |     |                |     |    |              |                          |                                 |
|---|---|----------------------|---------------|--|------------------|------------------------------|---------------------|----------------------------|---------------|-------------|------------------|--------|---|------------------------|-----------------|-------------------------------|--------|-----|----------------|-----|----|--------------|--------------------------|---------------------------------|
|   |   | Classification       |               | Polarity   | Number of points | Rated ON current at contacts | Rated voltage       | Horizontal (mm)            | Vertical (mm) | Height (mm) | DIN Track        | Screws |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
| Push-In Plus terminal block   |  | Inputs               | DC inputs     | NPN  | 16 (SPSTNO × 16) | 50 mA                        | 24 VDC              | 143                        | 90            | 56          | Yes              | Yes    | G70V-SID16P *4                          | UC, CE (TUV certified) |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | PNP  |                  |                              |                     |                            |               |             |                  |        | G70V-SID16P-1 *4                        |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | NPN  |                  |                              |                     |                            |               |             |                  |        | G70V-SID16P-C16 *5                      |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | PNP  |                  |                              |                     |                            |               |             |                  |        | G70V-SID16P-1-C16 *5                    |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   | Outputs              | Relay outputs | NPN  | 16 (SPDT × 16)   | 6 A/point, 10 A/ common      |                     |                            |               |             |                  |        | G70V-SOC16P *4                          |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | PNP  |                  |                              |                     |                            |               |             |                  |        | G70V-SOC16P-1 *4                        |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | NPN  |                  |                              |                     |                            |               |             |                  |        | G70V-SOC16P-C4 *6                       |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | PNP  |                  |                              |                     |                            |               |             |                  |        | G70V-SOC16P-1-C4 *6                     |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
| Standard  |  | Inputs               | AC inputs     | NPN  | 16 (SPSTNO × 16) | 1A                           | 100/(110) VAC       | 182                        | 85            | 68          | Yes              | No     | G7TC-IA16 AC100/110                     | U, C                   |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               |  |                  |                              | 200/(220) VAC       |                            |               |             |                  |        | G7TC-IA16 AC200/220                     |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               |  |                  |                              | 12 VDC              |                            |               |             |                  |        | G7TC-ID16 DC12                          |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      | 24 VDC        |  |                  |                              | G7TC-ID16 DC24      |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      | 100/110 VDC   |  |                  |                              | G7TC-ID16 DC100/110 |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      | Outputs       |  |                  |                              | Relay outputs       |                            |               |             |                  |        | NPN                                     |                        | 8 (SPSTNO × 8)  | 5A                            | 12 VDC | 102 | G7TC-OC08 DC12 |     |    |              |                          |                                 |
|   |   | 24 VDC               |               | G7TC-OC08 DC24   |                  |                              |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   | PNP                  |               | 16 (SPSTNO × 16)   | 12 VDC           | 182                          |                     | G7TC-OC16 DC12             |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | 24 VDC   | G7TC-OC16 DC24   |                              |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | 12 VDC   | G7TC-OC16-1 DC12 |                              |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | 24 VDC   | G7TC-OC16-1 DC24 |                              |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | NPN  | 16 (SPSTNO × 16) |                              |                     | 12 VDC                     |               |             |                  |        | G7TC-OC16-1 DC12                        |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   | 24 VDC               |               |  | G7TC-OC16-1 DC24 |                              |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   | High-capacity socket |               |  | Inputs           | Relay inputs                 |                     | NPN/ PNP                   |               |             |                  |        | 16 (SPDT × 16 possible with G2R Relays) |                        | 100 mA          | 110 VDC max., 240 VAC max. *2 | 234    | 75  | 64             | Yes | No | G70A-ZOC16-5 | U, C, CE (VDE certified) |                                 |
|   |   |                      |               |  |                  |                              |                     |                            |               |             |                  |        |   |                        | Outputs         | Relay outputs                 |        |     |                |     |    | NPN          |                          | 10 A (Terminal block allowable) |
|   |   |                      | PNP           |  | G70A-ZOC16-4     |                              |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
| Space-saving  | Vertical type G70D-V  |                      |               |  | Relay outputs    | NPN                          | 16 (SPSTNO × 16)    | 5 A or 3 A *3              | 24 VDC        | 135         | 46               | 81     |   | Yes                    |                 |                               |        |     |                |     |    | Yes          |                          | G70D-VSOC16                     |
|   |   |                      | 0.3 A         |  |                  |                              |                     | G70D-VFOM16                |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   | Flat type G70D  |                      | Relay outputs |  | NPN              | 8 (SPSTNO × 8)               | 5 A                 | 68                         |               | 93          | 44               | Yes    |   | Yes                    | G70D-SOC08      | —                             |        |     |                |     |    |              |                          |                                 |
|   |   | 16 (SPSTNO × 16)     |               | 3 A  |                  | G70D-SOC16                   |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   | 16 (SPSTNO × 16)     |               | 3 A  |                  | G70D-SOC16-1                 |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   | PNP                  |               | 16 (SPSTNO × 16)   | 3 A              | 156                          | 51                  |                            |               | 39          | G70D-FOM16       |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               | NPN  | 16 (SPSTNO × 16) |                              |                     |                            |               |             | 0.3 A            |        | G70D-FOM16-1 *7                         |                        |                 |                               |        |     |                |     |    |              |                          |                                 |
|   |   |                      |               |  | PNP              |                              |                     |                            |               |             | 16 (SPSTNO × 16) |        | 0.3 A                                   |                        | G70D-FOM16-1 *7 |                               |        |     |                |     |    |              |                          |                                 |
| High-capacity, space-saving   | G70R  | Outputs              | Relay outputs | NPN  | 8 (SPSTNO × 8)   | 10 A                         | 24 VDC              | 136                        | 93            | 55          | Yes              | Yes    | G70R-SOC08 *7                           | —                      |                 |                               |        |     |                |     |    |              |                          |                                 |
|  |   |                      |               |  |                  |                              |                     |                            |               |             |                  |        |   |                        |                 |                               |        |     |                |     |    |              |                          |                                 |

\*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.

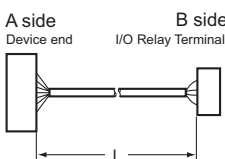
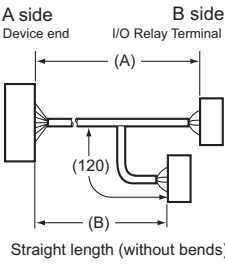
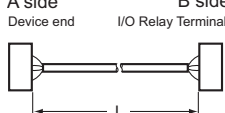
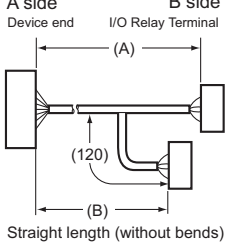
\*7. Product no longer available to order.

**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

| Type                         | Name  | I/O Classification | Appearance  | Cable length L (mm) |           | Models            |
|------------------------------|---|--------------------|---|---------------------|-----------|-------------------|
| Fujitsu connectors (24 pins) | Cables with Connectors (1:1)<br><br>XW2Z-R□C                        | 16 I/O points      | <div>A side<br/>Device end</div> <div>B side<br/>I/O Relay Terminal</div>   | 1,000               |           | XW2Z-R100C        |
|                              |   |                    |   | 1,500               |           | XW2Z-R150C        |
|                              |   |                    |   | 2,000               |           | XW2Z-R200C        |
|                              |   |                    |   | 3,000               |           | XW2Z-R300C        |
|                              |   |                    |   | 5,000               |           | XW2Z-R500C        |
| Fujitsu connectors (40 pins) | Cables with Connectors (1:2)<br><br>XW2Z-RI□C-□<br>XW2Z-RO□C-□      | 32 input points    | <div>A side<br/>Device end</div> <div>B side<br/>I/O Relay Terminal</div>   | (A) 1,000           | (B) 750   | XW2Z-RI100C-75    |
|                              |   |                    |   | (A) 1,500           | (B) 1,250 | XW2Z-RI150C-125   |
|                              |   |                    |   | (A) 2,000           | (B) 1,750 | XW2Z-RI200C-175   |
|                              |   |                    |   | (A) 3,000           | (B) 2,750 | XW2Z-RI300C-275   |
|                              |   |                    |   | (A) 5,000           | (B) 4,750 | XW2Z-RI500C-475   |
|                              |   | 32 output points   |   | (A) 1,000           | (B) 750   | XW2Z-RO100C-75    |
|                              |   |                    |   | (A) 1,500           | (B) 1,250 | XW2Z-RO150C-125   |
|                              |   |                    |   | (A) 2,000           | (B) 1,750 | XW2Z-RO200C-175   |
|                              |   |                    |   | (A) 3,000           | (B) 2,750 | XW2Z-RO300C-275   |
|                              |   |                    |   | (A) 5,000           | (B) 4,750 | XW2Z-RO500C-475   |
| MIL connectors (20 pins)     | Cables with Connectors (1:1)<br><br>XW2Z-RI□C<br>XW2Z-RO□C          | 16 I/O points      | <div>A side<br/>Device end</div> <div>B side<br/>I/O Relay Terminal</div>   | 250                 |           | XW2Z-RI25C        |
|                              |   |                    |   | 500                 |           | XW2Z-RI50C        |
|                              |   |                    |   | 250                 |           | XW2Z-RO25C        |
|                              |   |                    |   | 500                 |           | XW2Z-RO50C        |
| MIL connectors (40 pins)     | Cables with Connectors (1:2)<br><br>XW2Z-RO□-□-D1,<br>XW2Z-RI□-□-D1 | 32 I/O points      | <div>A side<br/>Device end</div> <div>B side<br/>I/O Relay Terminal</div>  | (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) 1,500           | (B) 1,250 | XW2Z-RO150-125-D1 |
|                              |   |                    |   | (A) 2,000           | (B) 1,750 | XW2Z-RO200-175-D1 |
|                              |   |                    |   | (A) 3,000           | (B) 2,750 | XW2Z-RO300-275-D1 |
|                              |   |                    |   | (A) 5,000           | (B) 4,750 | XW2Z-RO500-475-D1 |
|                              |   |                    |   | (A) 500             | (B) 250   | XW2Z-RI50-25-D1   |
|                              |   |                    |   | (A) 750             | (B) 500   | XW2Z-RI75-50-D1   |
|                              |   |                    |   | (A) 1,000           | (B) 750   | XW2Z-RI100-75-D1  |
|                              |   |                    |   | (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

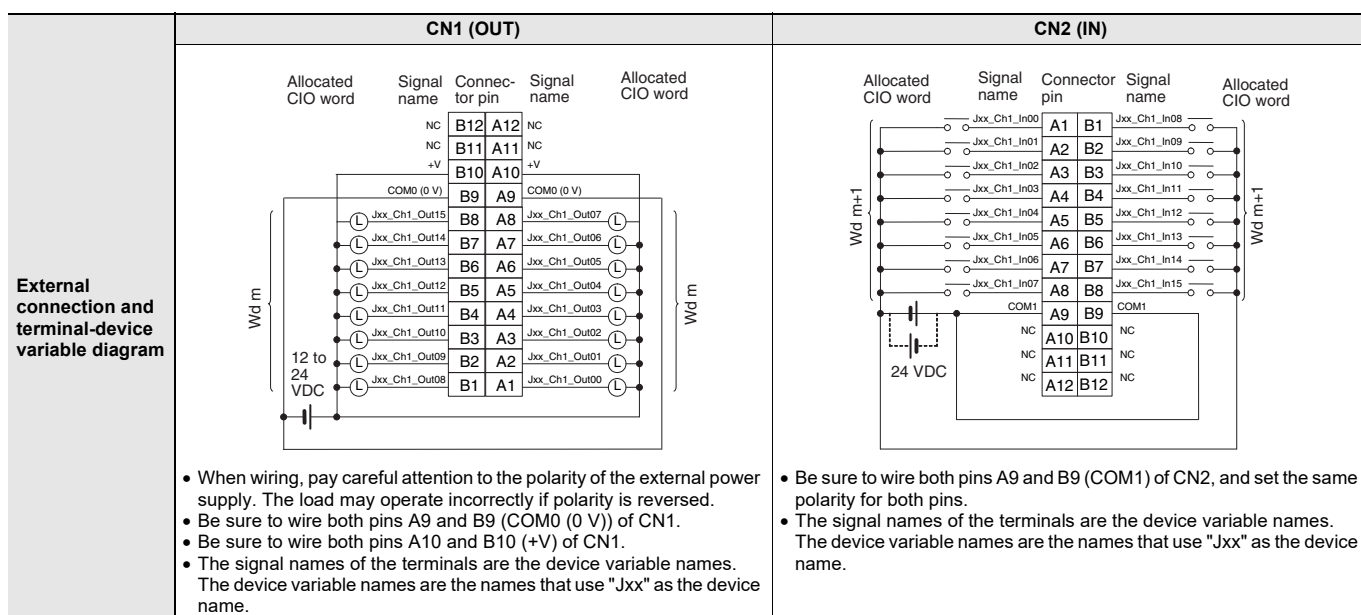
| Model      | NJ system |                                  | CJ system (CJ1, CJ2) |                                       | CP1H system   | NSJ system *   |                                       |
|------------|-----------|----------------------------------|----------------------|---------------------------------------|---------------|----------------|---------------------------------------|
|            | CPU Rack  | Expansion Rack                   | CPU Rack             | Expansion Backplane                   | CP1H PLC      | NSJ Controller | Expansion Backplane                   |
| CJ1W-MD231 | 10 Units  | 10 Units<br>(Per Expansion Rack) | 10 Units             | 10 Units<br>(Per Expansion Backplane) | Not supported | Not supported  | 10 Units<br>(Per Expansion Backplane) |
| CJ1W-MD232 |           |                                  |                      |                                       |               |                |                                       |
| CJ1W-MD233 |           |                                  |                      |                                       |               |                |                                       |
| CJ1W-MD261 |           |                                  |                      |                                       |               |                |                                       |
| CJ1W-MD263 |           |                                  |                      |                                       |               |                |                                       |
| CJ1W-MD563 |           |                                  |                      |                                       |               |                |                                       |

\* Product no longer available to order.

## Specifications

### CJ1W-MD231 DC Input/Transistor Output Unit (24 VDC, 16 Inputs/16 Outputs)

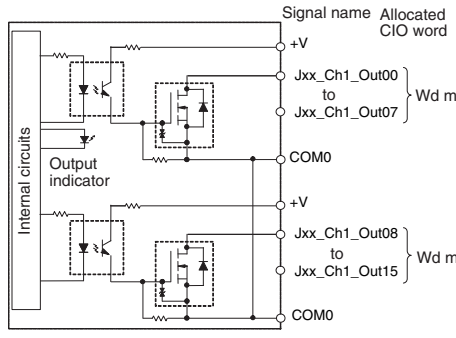
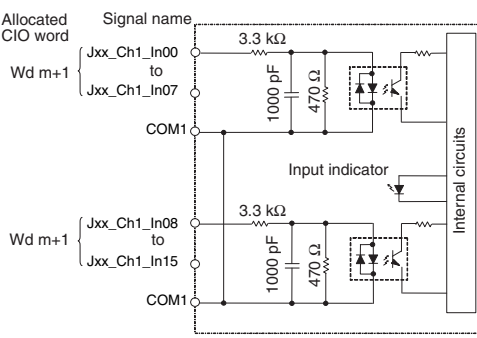
|                                     |   |   |  |
|-------------------------------------|---|---|--|
| <b>Name</b>                         | 16-point DC Input/16-point Transistor Output Unit with Fujitsu / OTAX Connectors (Sinking Outputs)  |   |  |
| <b>Model</b>                        | CJ1W-MD231  |   |  |
| <b>Output section (CN1)</b>         |   | <b>Input section (CN2)</b>                |  |
| <b>Rated Voltage</b>                | 12 to 24 VDC  | <b>Rated Input Voltage</b>                | 24 VDC   |
| <b>Operating Load Voltage Range</b> | 10.2 to 26.4 VDC  | <b>Operating Input Voltage</b>            | 20.4 to 26.4 VDC   |
| <b>Maximum Load Current</b>         | 0.5 A/point, 2.0 A/Unit   | <b>Input Impedance</b>                    | 3.3 kΩ   |
| <b>Maximum Inrush Current</b>       | 4.0 A/point, 10 ms max.   | <b>Input Current</b>                      | 7 mA typical (at 24 VDC)                                     |
| <b>Leakage Current</b>              | 0.1 mA max.   | <b>ON Voltage/ON Current</b>              | 14.4 VDC min./3 mA min.                                      |
| <b>Residual Voltage</b>             | 1.5 V max.  | <b>OFF Voltage/OFF Current</b>            | 5 VDC max./1 mA max.   |
| <b>ON Response Time</b>             | 0.1 ms max.   | <b>ON Response Time</b>                   | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * |
| <b>OFF Response Time</b>            | 0.8 ms max.   |   |  |
| <b>No. of Circuits</b>              | 16 (16 points/common, 1 circuit)  | <b>OFF Response Time</b>                  | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * |
| <b>Fuse</b>                         | None  |   |  |
| <b>External Power Supply</b>        | 10.2 to 26.4 VDC, 20 mA min.  | <b>No. of Circuits</b>                    | 16 (16 points/common, 1 circuit)                             |
|                                     |   | <b>Number of Simultaneously ON Points</b> | 75% (at 24 VDC)  |
| <b>Insulation Resistance</b>        | 20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)  |   |  |
| <b>Dielectric Strength</b>          | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.  |   |  |
| <b>Internal Current Consumption</b> | 5 VDC 130 mA max.   |   |  |
| <b>Weight</b>                       | 90 g max.   |   |  |
| <b>Accessories</b>                  | None  |   |  |
| <b>Circuit Configuration</b>        | <b>CN1 (OUT)</b>  |   | <b>CN2 (IN)</b>  |
|                                     | <p>• 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.</p> <p>• 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.</p> |   |  |

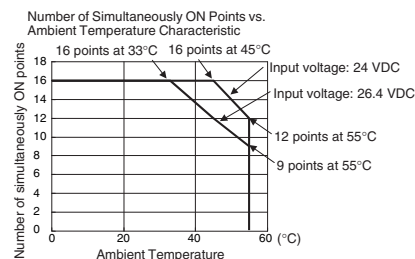


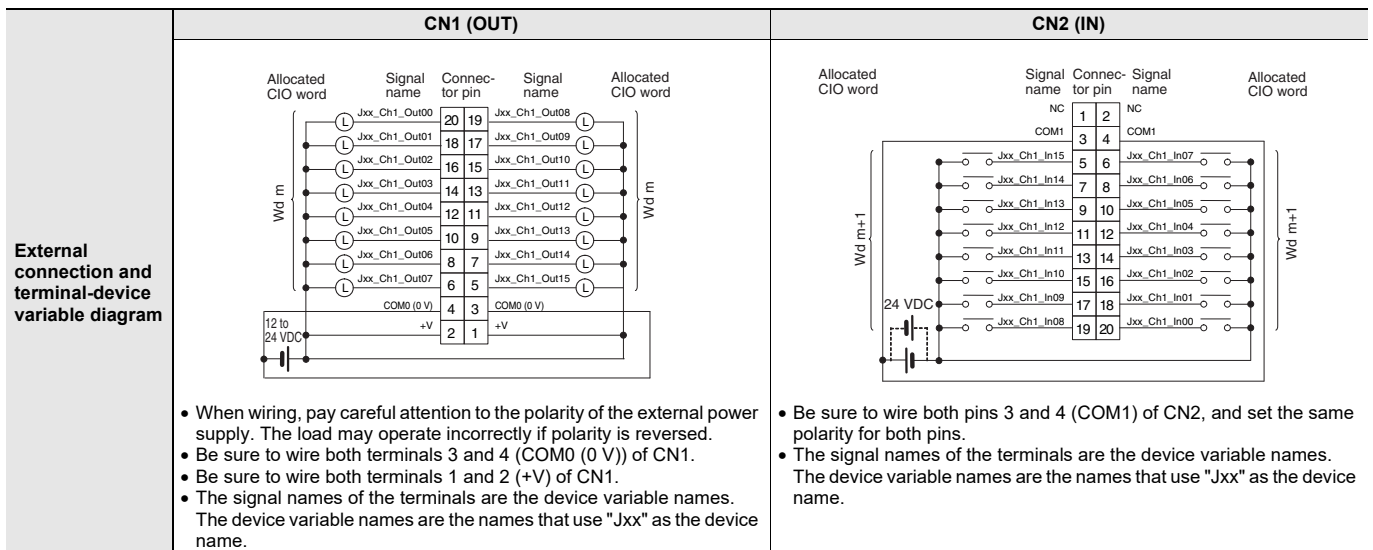
\* The ON response time will be 20  $\mu$ s maximum and OFF response time will be 400  $\mu$ s maximum even if the response times are set to 0 ms due to internal element delays.



## CJ1W-MD233 DC Input/Transistor Output Unit (24 VDC, 16 Inputs/16 Outputs)

|                                     |  |   |   |
|-------------------------------------|--|---|---|
| <b>Name</b>                         | 16-point DC Input/16-point Transistor Output Unit with MIL Connectors (Sinking Outputs)  |   |   |
| <b>Model</b>                        | CJ1W-MD233   |   |   |
| <b>Output section (CN1)</b>         |  | <b>Input section (CN2)</b>                |   |
| <b>Rated Voltage</b>                | 12 to 24 VDC   | <b>Rated Input Voltage</b>                | 24 VDC  |
| <b>Operating Load Voltage Range</b> | 10.2 to 26.4 VDC   | <b>Operating Input Voltage</b>            | 20.4 to 26.4 VDC  |
| <b>Maximum Load Current</b>         | 0.5 A/point, 2.0 A/Unit  | <b>Input Impedance</b>                    | 3.3 k $\Omega$  |
| <b>Maximum Inrush Current</b>       | 4.0 A/point, 10 ms max.  | <b>Input Current</b>                      | 7 mA typical (at 24 VDC)  |
| <b>Leakage Current</b>              | 0.1 mA max.  | <b>ON Voltage/ON Current</b>              | 14.4 VDC min./3 mA min.   |
| <b>Residual Voltage</b>             | 1.5 V max.   | <b>OFF Voltage/OFF Current</b>            | 5 VDC max./1 mA max.  |
| <b>ON Response Time</b>             | 0.1 ms max.  | <b>ON Response Time</b>                   | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *  |
| <b>OFF Response Time</b>            | 0.8 ms max.  |   |   |
| <b>No. of Circuits</b>              | 16 (16 points/common, 1 circuit)   | <b>OFF Response Time</b>                  | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *  |
| <b>Fuse</b>                         | None   |   |   |
| <b>External Power Supply</b>        | 10.2 to 26.4 VDC, 20 mA min.   | <b>No. of Circuits</b>                    | 16 (16 points/common, 1 circuit)  |
|                                     |  | <b>Number of Simultaneously ON Points</b> | 75% (at 24 VDC)   |
| <b>Insulation Resistance</b>        | 20 M $\Omega$ min. between the external terminals and the GR terminal (at 100 VDC)   |   |   |
| <b>Dielectric Strength</b>          | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.   |   |   |
| <b>Internal Current Consumption</b> | 5 VDC 130 mA max.  |   |   |
| <b>Weight</b>                       | 90 g max.  |   |   |
| <b>Accessories</b>                  | None   |   |   |
| <b>Circuit Configuration</b>        | <b>CN1 (OUT)</b>   |   | <b>CN2 (IN)</b>   |
|                                     |  <p>• 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.</p> |   |  <p>• 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.</p> |



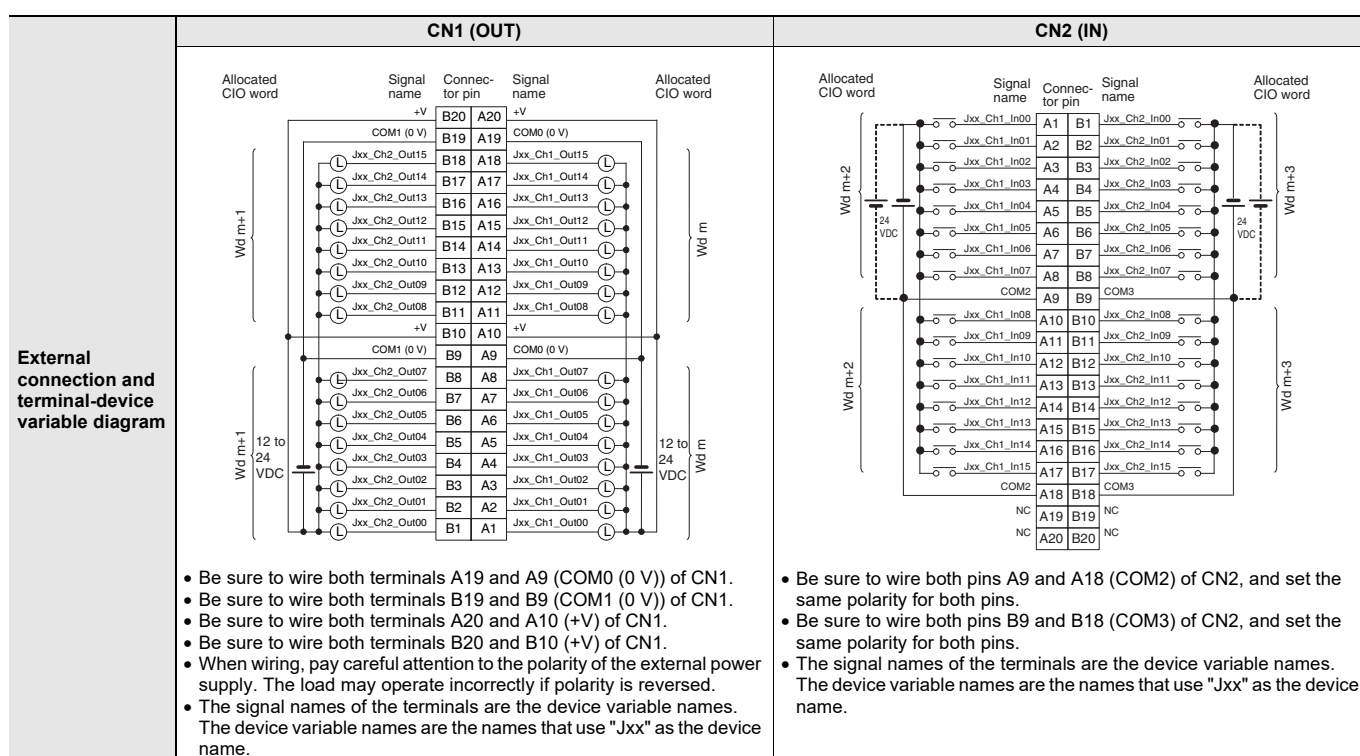


\* The ON response time will be 20  $\mu$ s maximum and OFF response time will be 400  $\mu$ s maximum even if the response times are set to 0 ms due to internal element delays.

## CJ1W-MD261 DC Input/Transistor Output Unit (24 VDC 32 Inputs/32 Outputs)

|                                     |  |   |   |
|-------------------------------------|--|---|---|
| <b>Name</b>                         | 32-point DC Input/32-point Transistor Output Unit with Fujitsu / OTAX Connectors (Sinking Outputs)           |   |   |
| <b>Model</b>                        | CJ1W-MD261   |   |   |
| <b>Output section (CN1)</b>         |  | <b>Input section (CN2)</b>                |   |
| <b>Rated Voltage</b>                | 12 to 24 VDC   | <b>Rated Input Voltage</b>                | 24 VDC  |
| <b>Operating Load Voltage Range</b> | 10.2 to 26.4 VDC   | <b>Operating Input Voltage</b>            | 20.4 to 26.4 VDC  |
| <b>Maximum Load Current</b>         | 0.3 A/point, 1.6 A/common, 3.2 A/Unit  | <b>Input Impedance</b>                    | 5.6 k $\Omega$  |
| <b>Maximum Inrush Current</b>       | 3.0 A/point, 10 ms max.  | <b>Input Current</b>                      | 4.1 mA typical (at 24 VDC)                                    |
| <b>Leakage Current</b>              | 0.1 mA max.  | <b>ON Voltage/ON Current</b>              | 19.0 VDC min./3 mA min. *2                                    |
| <b>Residual Voltage</b>             | 1.5 V max.   | <b>OFF Voltage/OFF Current</b>            | 5 VDC max./1 mA max.  |
| <b>ON Response Time</b>             | 0.5 ms max.  | <b>ON Response Time</b>                   | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1 |
| <b>OFF Response Time</b>            | 1.0 ms max.  |   |   |
| <b>No. of Circuits</b>              | 32 (16 points/common, 2 circuits)  | <b>OFF Response Time</b>                  | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1 |
| <b>Fuse</b>                         | None   |   |   |
| <b>External Power Supply</b>        | 10.2 to 26.4 VDC, 30 mA min.   | <b>No. of Circuits</b>                    | 32 (16 points/common, 2 circuits)                             |
|                                     |  | <b>Number of Simultaneously ON Points</b> | 75% (24 points) (at 24 VDC)                                   |
| <b>Insulation Resistance</b>        | 20 M $\Omega$ min. between the external terminals and the GR terminal (at 100 VDC)                           |   |   |
| <b>Dielectric Strength</b>          | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |   |   |
| <b>Internal Current Consumption</b> | 5 VDC 140 mA max.  |   |   |
| <b>Weight</b>                       | 110 g max.   |   |   |
| <b>Accessories</b>                  | None   |   |   |

|                              |  |   |
|------------------------------|--|---|
| <b>Circuit Configuration</b> | <p><b>CN1 (OUT)</b></p> <p>• 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.</p>   | <p><b>CN2 (IN)</b></p> <p>• 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.</p> |
|                              | <p>Number of Simultaneously ON Points vs. Ambient Temperature Characteristic</p> <p>Number of simultaneously ON points</p> <p>Ambient Temperature</p> <p>Input voltage: 24 VDC</p> <p>Input voltage: 26.4 VDC</p> <p>12 points/common at 55°C</p> <p>8 points/common at 55°C</p> <p>32 points at 38°C</p> <p>32 points at 44°C</p> |   |

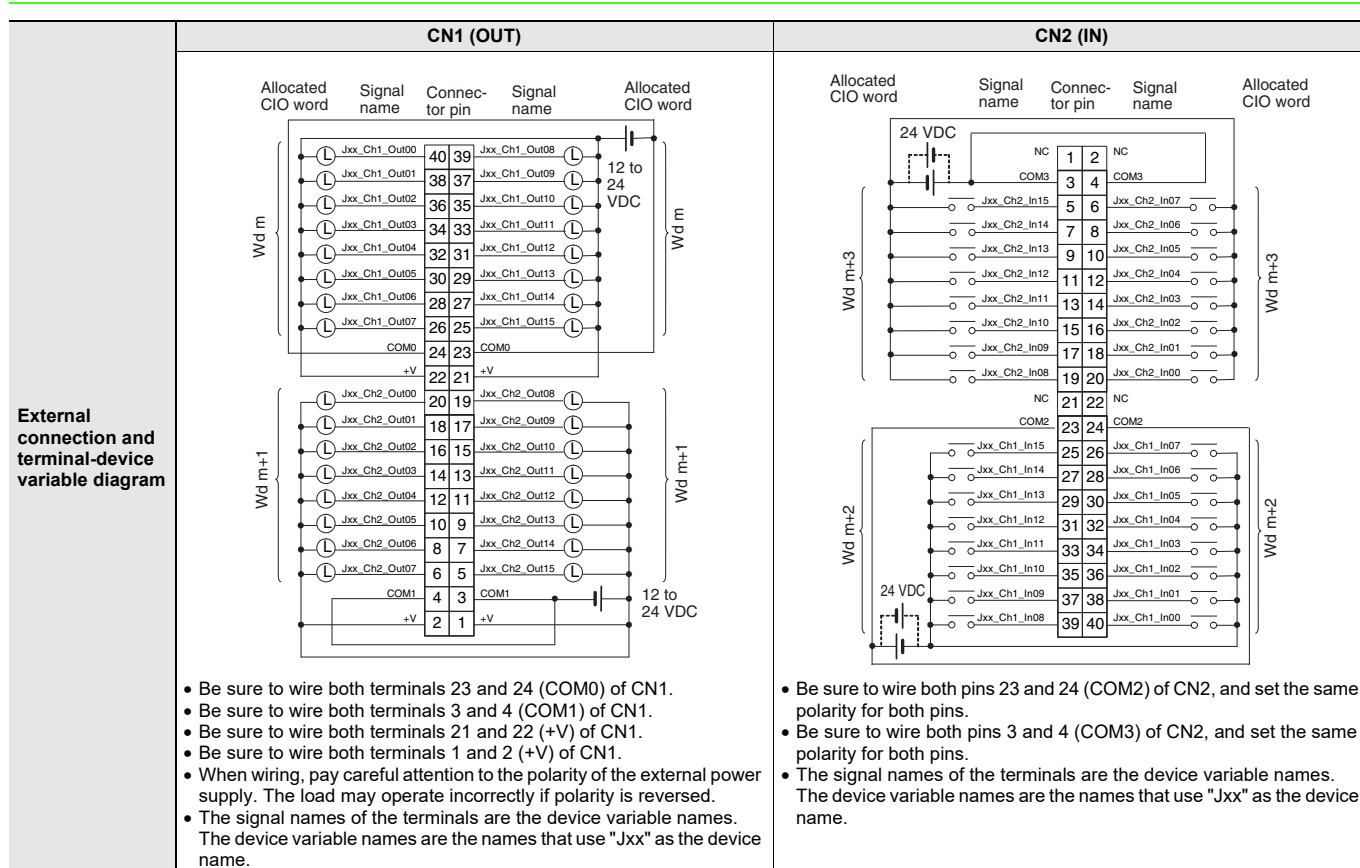


- \*1. The ON response time will be 120  $\mu$ s maximum and OFF response time will be 400  $\mu$ s maximum even if the response times are set to 0 ms due to internal element delays.
- \*2. Observe the following restrictions when connecting to a 2-wire sensor.
  - Make sure the input power supply voltage 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-MD263 DC Input/Transistor Output Unit (24 VDC 32 Inputs/32 Outputs)

|                                     |  |   |   |
|-------------------------------------|--|---|---|
| <b>Name</b>                         | 32-point DC Input/32-point Transistor Output Unit with MIL Connectors (Sinking Outputs)                      |   |   |
| <b>Model</b>                        | CJ1W-MD263   |   |   |
| <b>Output section (CN1)</b>         |  | <b>Input section (CN2)</b>                |   |
| <b>Rated Voltage</b>                | 12 to 24 VDC   | <b>Rated Input Voltage</b>                | 24 VDC  |
| <b>Operating Load Voltage Range</b> | 10.2 to 26.4 VDC   | <b>Operating Input Voltage</b>            | 20.4 to 26.4 VDC  |
| <b>Maximum Load Current</b>         | 0.3 A/point, 1.6 A/common, 3.2 A/Unit  | <b>Input Impedance</b>                    | 5.6 k $\Omega$  |
| <b>Maximum Inrush Current</b>       | 3.0 A/point, 10 ms max.  | <b>Input Current</b>                      | 4.1 mA typical (at 24 VDC)                                    |
| <b>Leakage Current</b>              | 0.1 mA max.  | <b>ON Voltage/ON Current</b>              | 19.0 VDC min./3 mA min. *2                                    |
| <b>Residual Voltage</b>             | 1.5 V max.   | <b>OFF Voltage/OFF Current</b>            | 5 VDC max./1 mA max.  |
| <b>ON Response Time</b>             | 0.5 ms max.  | <b>ON Response Time</b>                   | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1 |
| <b>OFF Response Time</b>            | 1.0 ms max.  |   |   |
| <b>No. of Circuits</b>              | 32 (16 points/common, 2 circuits)  | <b>OFF Response Time</b>                  | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) *1 |
| <b>Fuse</b>                         | None   |   |   |
| <b>External Power Supply</b>        | 10.2 to 26.4 VDC, 30 mA min.   | <b>No. of Circuits</b>                    | 32 (16 points/common, 2 circuits)                             |
|                                     |  | <b>Number of Simultaneously ON Points</b> | 75% (24 points) (at 24 VDC)                                   |
| <b>Insulation Resistance</b>        | 20 M $\Omega$ min. between the external terminals and the GR terminal (at 100 VDC)                           |   |   |
| <b>Dielectric Strength</b>          | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |   |   |
| <b>Internal Current Consumption</b> | 5 VDC 140 mA max.  |   |   |
| <b>Weight</b>                       | 110 g max.   |   |   |
| <b>Accessories</b>                  | None   |   |   |

|                              |  |   |
|------------------------------|--|---|
| <b>Circuit Configuration</b> | <p><b>CN1 (OUT)</b></p> <p>• 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.</p>   | <p><b>CN2 (IN)</b></p> <p>• 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.</p> |
|                              | <p>Number of Simultaneously ON Points vs. Ambient Temperature Characteristic</p> <p>Number of simultaneously ON points</p> <p>Ambient Temperature</p> <p>Input voltage: 24 VDC</p> <p>Input voltage: 26.4 VDC</p> <p>32 points at 38°C</p> <p>32 points at 44°C</p> <p>12 points/common at 55°C</p> <p>8 points/common at 55°C</p> |   |



\*1. The ON response time will be 120  $\mu$ s maximum and OFF response time will be 400  $\mu$ s maximum even if the response times are set to 0 ms due to internal element delays.

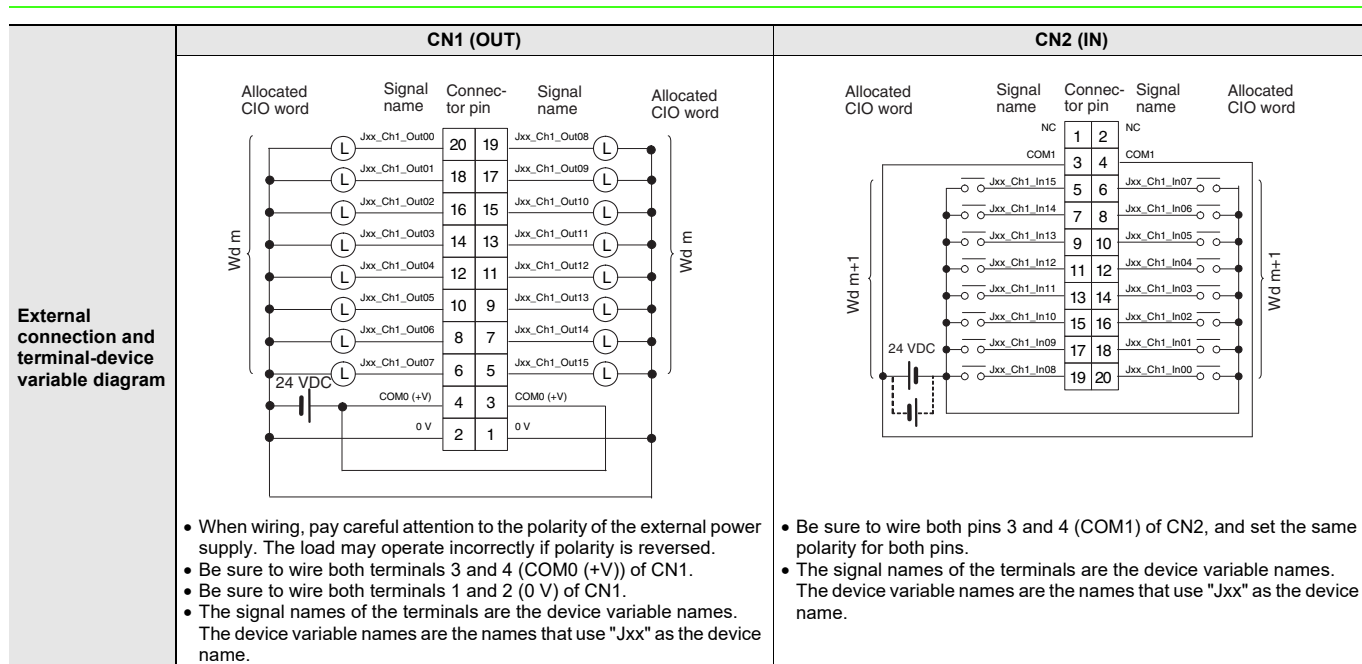
\*2. Observe the following restrictions when connecting to a 2-wire sensor.

- 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-MD232 DC Input/Transistor Output Unit (24 VDC, 16 inputs/16 Outputs)

|                                      |  |   |  |
|--------------------------------------|--|---|--|
| <b>Name</b>                          | 16-point DC Input/16-point Transistor Output Unit with MIL Connectors (Sourcing Outputs)                     |   |  |
| <b>Model</b>                         | CJ1W-MD232   |   |  |
| <b>Output section (CN1)</b>          |  | <b>Input section (CN2)</b>                |  |
| <b>Rated Voltage</b>                 | 24 VDC   | <b>Rated Input Voltage</b>                | 24 VDC   |
| <b>Operating Load Voltage Range</b>  | 20.4 to 26.4 VDC   | <b>Operating Input Voltage</b>            | 20.4 to 26.4 VDC   |
| <b>Maximum Load Current</b>          | 0.5 A/point, 2.0 A/Unit  | <b>Input Impedance</b>                    | 3.3 k $\Omega$   |
| <b>Leakage Current</b>               | 0.1 mA max.  | <b>Input Current</b>                      | 7 mA typical (at 24 VDC)                                     |
| <b>Residual Voltage</b>              | 1.5 V max.   | <b>ON Voltage/ON Current</b>              | 14.4 VDC min./3 mA min.                                      |
| <b>ON Response Time</b>              | 0.5 ms max.  | <b>OFF Voltage/OFF Current</b>            | 5 VDC max./1 mA max.   |
| <b>OFF Response Time</b>             | 1.0 ms max.  | <b>ON Response Time</b>                   | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * |
| <b>Load Short-circuit Protection</b> | Detection current: 0.7 to 2.5 A min.<br>Automatic restart after error clearance.                             | <b>OFF Response Time</b>                  | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * |
| <b>No. of Circuits</b>               | 16 (16 points/common, 1 circuit)   | <b>No. of Circuits</b>                    | 16 (16 points/common, 1 circuit)                             |
| <b>External Power Supply</b>         | 20.4 to 26.4 VDC, 40 mA min.   | <b>Number of Simultaneously ON Points</b> | 75% (at 24 VDC)  |
| <b>Insulation Resistance</b>         | 20 M $\Omega$ min. between the external terminals and the GR terminal (at 100 VDC)                           |   |  |
| <b>Dielectric Strength</b>           | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |   |  |
| <b>Internal Current Consumption</b>  | 5 VDC 130 mA max.  |   |  |
| <b>Weight</b>                        | 100 g max.   |   |  |
| <b>Accessories</b>                   | None   |   |  |

| Circuit Configuration | <div>CN1 (OUT)</div> <div><p>Signal name<br/>Allocated CIO word</p><p>COM0 (+V)</p><p>Jxx_Ch1_Out00 to Jxx_Ch1_Out07 } Wd m</p><p>0 V</p><p>COM0 (+V)</p><p>Jxx_Ch1_Out08 to Jxx_Ch1_Out15 } Wd m</p><p>0 V</p><p>Output indicator</p><p>ERR indicator</p></div> <div><ul style="list-style-type: none"><li>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.</li></ul></div> | <div>CN2 (IN)</div> <div><p>Allocated CIO word<br/>Signal name</p><p>Wd m+1 { Jxx_Ch1_In00 to Jxx_Ch1_In07 } 3.3 kΩ 1000 pF 470 Ω</p><p>COM1</p><p>Input indicator</p><p>Wd m+1 { Jxx_Ch1_In08 to Jxx_Ch1_In15 } 3.3 kΩ 1000 pF 470 Ω</p><p>COM1</p></div> <div><ul style="list-style-type: none"><li>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.</li></ul></div> <div><p>Number of Simultaneously ON Points vs. Ambient Temperature Characteristic</p><p>16 points at 33°C 16 points at 45°C</p><p>Input voltage: 24 VDC</p><p>Input voltage: 26.4 VDC</p><p>12 points at 55°C</p><p>9 points at 55°C</p><table><thead><tr><th>Ambient Temperature (°C)</th><th>24 VDC</th><th>26.4 VDC</th><th>12 points at 55°C</th><th>9 points at 55°C</th></tr></thead><tbody><tr><td>0</td><td>16</td><td>16</td><td>12</td><td>9</td></tr><tr><td>20</td><td>16</td><td>16</td><td>12</td><td>9</td></tr><tr><td>40</td><td>16</td><td>16</td><td>12</td><td>9</td></tr><tr><td>60</td><td>16</td><td>16</td><td>12</td><td>9</td></tr></tbody></table></div> | Ambient Temperature (°C) | 24 VDC            | 26.4 VDC         | 12 points at 55°C | 9 points at 55°C | 0 | 16 | 16 | 12 | 9 | 20 | 16 | 16 | 12 | 9 | 40 | 16 | 16 | 12 | 9 | 60 | 16 | 16 | 12 | 9 |
|-----------------------|---|---|--------------------------|-------------------|------------------|-------------------|------------------|---|----|----|----|---|----|----|----|----|---|----|----|----|----|---|----|----|----|----|---|
|                       | Ambient Temperature (°C)  | 24 VDC  | 26.4 VDC                 | 12 points at 55°C | 9 points at 55°C |                   |                  |   |    |    |    |   |    |    |    |    |   |    |    |    |    |   |    |    |    |    |   |
| 0                     | 16  | 16  | 12                       | 9                 |                  |                   |                  |   |    |    |    |   |    |    |    |    |   |    |    |    |    |   |    |    |    |    |   |
| 20                    | 16  | 16  | 12                       | 9                 |                  |                   |                  |   |    |    |    |   |    |    |    |    |   |    |    |    |    |   |    |    |    |    |   |
| 40                    | 16  | 16  | 12                       | 9                 |                  |                   |                  |   |    |    |    |   |    |    |    |    |   |    |    |    |    |   |    |    |    |    |   |
| 60                    | 16  | 16  | 12                       | 9                 |                  |                   |                  |   |    |    |    |   |    |    |    |    |   |    |    |    |    |   |    |    |    |    |   |

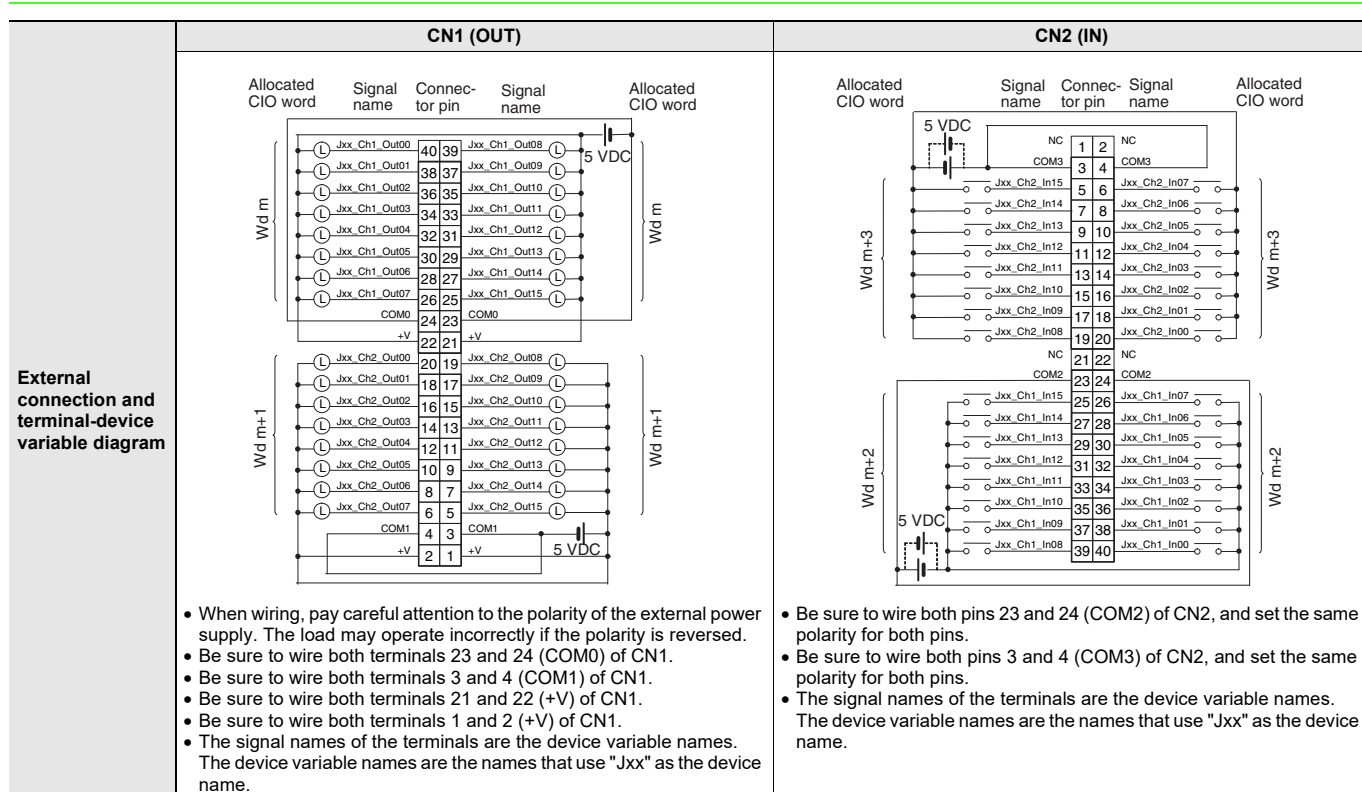


\* The ON response time will be 20  $\mu$ s maximum and OFF response time will be 400  $\mu$ s maximum even if the response times are set to 0 ms due to internal element delays.



## CJ1W-MD563 TTL I/O Unit (32 Inputs/32 Outputs)

|                                     |   |   |  |
|-------------------------------------|---|---|--|
| <b>Name</b>                         | 32-point Input /32-point Output TTL I/O Unit with MIL Connectors  |   |  |
| <b>Model</b>                        | CJ1W-MD563  |   |  |
| <b>Output section (CN1)</b>         |   | <b>Input section (CN2)</b>                |  |
| <b>Rated Voltage</b>                | 5 VDC±10%   | <b>Rated Input Voltage</b>                | 5 VDC±10%  |
| <b>Operating Load Voltage Range</b> | 4.5 to 5.5 VDC  | <b>Input Impedance</b>                    | 1.1 kΩ   |
| <b>Maximum Load Current</b>         | 35 mA/point, 560 mA/common, 1.12 A/Unit   | <b>Input Current</b>                      | Approx. 3.5 mA (at 5 VDC)                                    |
| <b>Leakage Current</b>              | 0.1 mA max.   | <b>ON Voltage</b>                         | 3.0 VDC min.   |
| <b>Residual Voltage</b>             | 0.4 V max.  | <b>OFF Voltage</b>                        | 1.0 VDC max.   |
| <b>ON Response Time</b>             | 0.2 ms max.   | <b>ON Response Time</b>                   | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * |
| <b>OFF Response Time</b>            | 0.3 ms max.   | <b>OFF Response Time</b>                  | 8.0 ms max. (Can be set to between 0 and 32 in the Setup.) * |
| <b>No. of Circuits</b>              | 32 points (16 points/common, 2 circuits)  | <b>No. of Circuits</b>                    | 32 points (16 points/common, 2 circuits)                     |
| <b>Fuse</b>                         | None  | <b>Number of Simultaneously ON Points</b> | 100% (16 points/common)                                      |
| <b>External Power Supply</b>        | 5 VDC±10%, 40 mA min. (1.2 mA × No. of ON points)   |   |  |
| <b>Insulation Resistance</b>        | 20 MΩ min. between the external terminals and the GR terminal (at 100 VDC)  |   |  |
| <b>Dielectric Strength</b>          | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max.  |   |  |
| <b>Internal Current Consumption</b> | 5 VDC 190 mA max.   |   |  |
| <b>Weight</b>                       | 110 g max.  |   |  |
| <b>Accessories</b>                  | None  |   |  |
| <b>Circuit Configuration</b>        | <b>CN1 (OUT)</b>  |   | <b>CN2 (IN)</b>  |
|                                     | <p>• 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.</p> <p>• 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.</p> |   |  |



\* The ON response time will be 120  $\mu$ s maximum and OFF response time will be 400  $\mu$ s maximum even if the response times are set to 0 ms due to internal element delays.

## Bit Allocations for Mixed I/O Unit

### 32-point Mixed I/O Unit

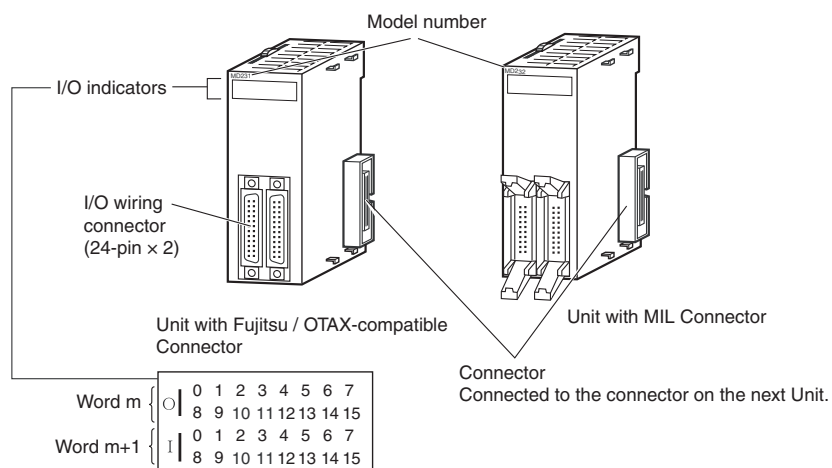
| Allocated CIO word |     | Signal name (CJ/NJ) |
|--------------------|-----|---------------------|
| CIO                | Bit |                     |
| Wd m<br>(Output)   | 00  | OUT0/Jxx_Ch1_Out00  |
|                    | 01  | OUT1/Jxx_Ch1_Out01  |
|                    | :   | :                   |
|                    | 14  | OUT14/Jxx_Ch1_Out14 |
|                    | 15  | OUT15/Jxx_Ch1_Out15 |
| Wd m+1<br>(Input)  | 00  | IN0/Jxx_Ch1_In00    |
|                    | 01  | IN1/Jxx_Ch1_In01    |
|                    | :   | :                   |
|                    | 14  | IN14/Jxx_Ch1_In14   |
|                    | 15  | IN15/Jxx_Ch1_In15   |

### 64-point Mixed I/O Unit

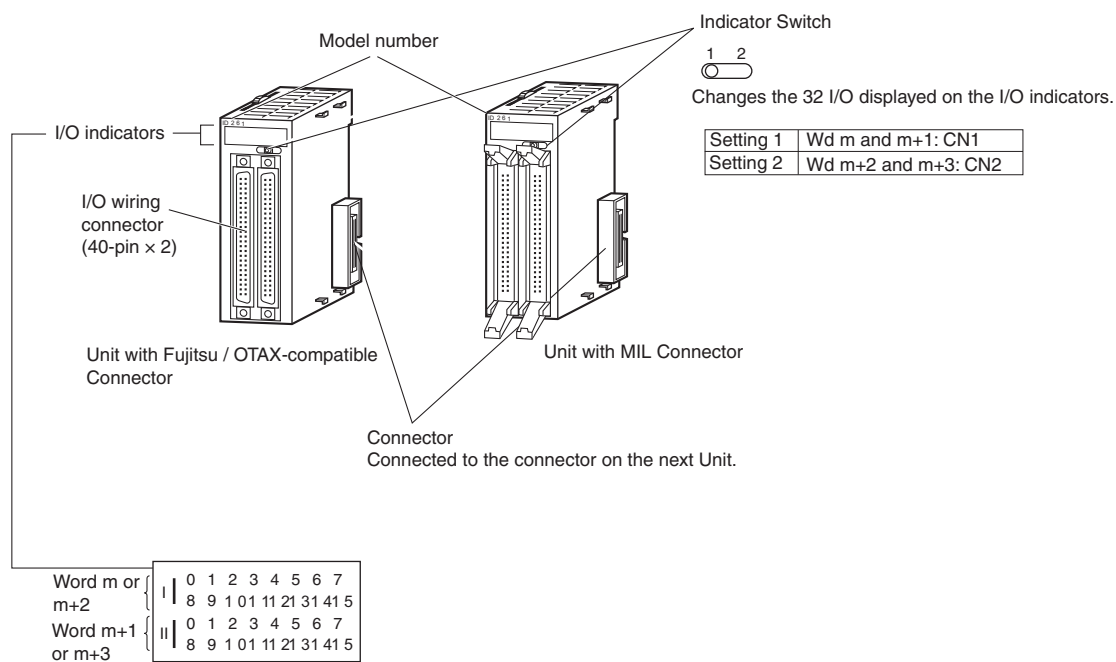
| Allocated CIO word |     | Signal name (CJ/NJ) |
|--------------------|-----|---------------------|
| CIO                | Bit |                     |
| Wd m<br>(Output)   | 00  | OUT0/Jxx_Ch1_Out00  |
|                    | 01  | OUT1/Jxx_Ch1_Out01  |
|                    | :   | :                   |
|                    | 14  | OUT14/Jxx_Ch1_Out14 |
|                    | 15  | OUT15/Jxx_Ch1_Out15 |
| Wd m+1<br>(Output) | 00  | OUT0/Jxx_Ch2_Out00  |
|                    | 01  | OUT1/Jxx_Ch2_Out01  |
|                    | :   | :                   |
|                    | 14  | OUT14/Jxx_Ch2_Out14 |
|                    | 15  | OUT15/Jxx_Ch2_Out15 |
| Wd m+2<br>(Input)  | 00  | IN0/Jxx_Ch1_In00    |
|                    | 01  | IN1/Jxx_Ch1_In01    |
|                    | :   | :                   |
|                    | 14  | IN14/Jxx_Ch1_In14   |
|                    | 15  | IN15/Jxx_Ch1_In15   |
| Wd m+3<br>(Input)  | 00  | IN0/Jxx_Ch2_In00    |
|                    | 01  | IN1/Jxx_Ch2_In01    |
|                    | :   | :                   |
|                    | 14  | IN14/Jxx_Ch2_In14   |
|                    | 15  | IN15/Jxx_Ch2_In15   |

## External Interface

### 32-point Units (Model with 24-pin × 2 Fujitsu / OTAX Connectors or with 20-pin × 2 MIL Connectors)



### 64-point Units (Models with Two 40-point Fujitsu / OTAX Connectors or MIL Connector)

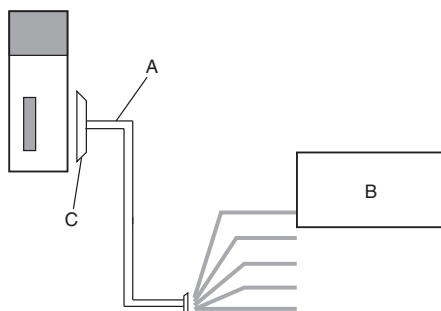


## I/O Unit Wiring Methods

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.

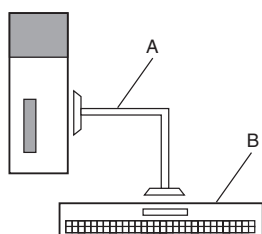


|          |                     |
|----------|---------------------|
| <b>A</b> | User-provided cable |
| <b>B</b> | External device     |
| <b>C</b> | Connector           |

### 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.

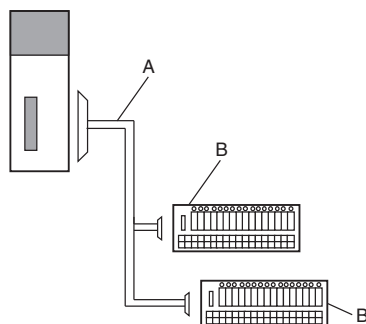


|          |   |
|----------|---|
| <b>A</b> | Connecting Cable for Connector-Terminal Block Conversion Unit<br>XW2Z |
| <b>B</b> | Connector-Terminal Block Conversion Unit<br>XW2□                      |

### 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.



|          |   |
|----------|---|
| <b>A</b> | Connecting Cable for I/O Relay Terminals<br>XW2Z-R  |
| <b>B</b> | I/O Relay Terminals<br>G70V, G7TC<br>Relay Terminals<br>G70D, G70R<br>I/O Terminal Socket<br>G70A<br>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 / OTAX-compatible Connectors

#### Applicable Units

| Model      | Specifications  | Pins |
|------------|---|------|
| CJ1W-MD261 | 24-VDC Input/Transistor Output Units, 32 Inputs, 32 Outputs | 40   |
| CJ1W-MD231 | 24-VDC Input/Transistor Output Units, 16 Inputs, 16 Outputs | 24   |

#### Applicable Cable-side Connectors

| Connection      | Pins | OMRON set  | Fujitsu / OTAX parts  |
|-----------------|------|------------|---|
| Solder-type     | 40   | C500-CE404 | Socket: Fujitsu FCN-361J040-AU<br>Connector cover: Fujitsu FCN-360C040-J2<br>OTAX N360C040J2  |
|                 | 24   | C500-CE241 | Socket: Fujitsu FCN-361J024-AU<br>Connector cover: Fujitsu FCN-360C024-J2<br>OTAX N360C024J2  |
| Crimped         | 40   | C500-CE405 | Socket: Fujitsu FCN-363J040<br>OTAX N363J040<br>Connector cover: Fujitsu FCN-360C040-J2<br>OTAX N360C040J2<br>Contacts: Fujitsu FCN-363J-AU<br>OTAX N363JAU |
|                 | 24   | C500-CE242 | Socket: Fujitsu FCN-363J024<br>OTAX N363J024<br>Connector cover: Fujitsu FCN-360C024-J2<br>OTAX N360C024J2<br>Contacts: Fujitsu FCN-363J-AU<br>OTAX N363JAU |
| Pressure-welded | 40   | C500-CE403 | Fujitsu FCN-367J040-AU/F  |
|                 | 24   | C500-CE243 | Fujitsu FCN-367J024-AU/F<br>OTAX N367J024AUF  |

### 32- and 64-point Basic I/O Units with MIL Connectors

#### Applicable Units

| Model      | Specifications  | Pins |
|------------|---|------|
| CJ1W-MD263 | 24-VDC Input/Transistor Output Units, 32 inputs, 32 outputs | 40   |
| CJ1W-MD563 | TTL Input/TTL Output Units, 32 inputs, 32 outputs           |      |
| CJ1W-MD232 | 24-VDC Input/Transistor Output Units, 16 inputs, 16 outputs | 20   |
| CJ1W-MD233 | 24-VDC Input/Transistor Output Units, 16 inputs, 16 outputs |      |

#### Applicable Cable-side Connectors

| Connection      | Pins | OMRON set  | DDK parts      |
|-----------------|------|--|----------------|
| Pressure-welded | 40   | XG4M-4030-T *1   | FRC5-A040-3T0S |
|                 | 20   | XG4M-2030-T  | FRC5-A020-3T0S |
| Crimped         | 40   | XG5N-401 *2  | HU-40OS2-001   |
|                 | —    | Crimp Contacts for XG5N *3<br>XG5W-0232 (loose contacts: 100 pieces)<br>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](http://www.ia.omron.com).

## Wire Size

We recommend using cable with wire gauges of AWG 28 to 24 (0.08 to 0.2 mm<sup>2</sup>). 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 / OTAX 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)

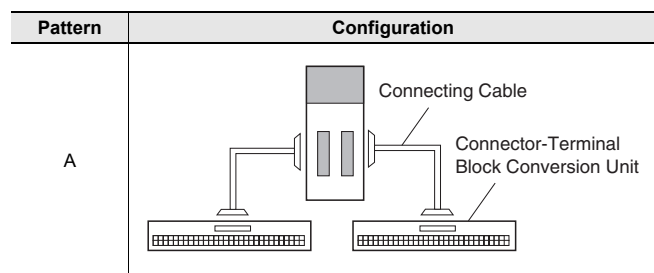
| Product Name          | Model     |
|-----------------------|-----------|
| Pressure-welding Tool | XY2B-0002 |
| Attachment            | XY2B-1007 |

#### 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 |
|------------|--------------|-----------------------------|----------|--------------------|--------------------|--|-------------------------|------------------|
| CJ1W-MD231 | 16 inputs    | 1 Fujitsu / OTAX connectors | NPN/PNP  | A                  | XW2Z-□□□A          | XW2K-20G-T                               | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□A          | XW2K-20G-O16A-IN                         | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□A          | XW2D-20G6                                | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□A          | XW2R-E20GD-T                             | Slotted screw (rise up) | No               |
|            | 16 outputs   | 1 Fujitsu / OTAX connectors | NPN      | A                  | XW2Z-□□□A          | XW2K-20G-T                               | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□A          | XW2K-20G-O16B-OUT                        | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□A          | XW2D-20G6                                | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□A          | XW2R-E20GD-T                             | Slotted screw (rise up) | No               |
| CJ1W-MD232 | 16 inputs    | 1 MIL connectors            | NPN/PNP  | A                  | XW2Z-□□□X          | XW2K-20G-T                               | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2D-20G6                                | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2R-E20GD-T                             | Slotted screw (rise up) | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2K-20G-T                               | Push-In Plus            | No               |
|            | 16 outputs   | 1 MIL connectors            | PNP      | A                  | XW2Z-□□□X          | XW2D-20G6                                | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2R-E20GD-T                             | Slotted screw (rise up) | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2K-20G-T                               | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2D-20G6                                | Phillips screw          | No               |
| CJ1W-MD233 | 16 inputs    | 1 MIL connectors            | NPN/PNP  | A                  | XW2Z-□□□X          | XW2K-20G-T                               | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□X-R        | XW2K-20G-O16A-IN                         | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2D-20G6                                | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2R-E20GD-T                             | Slotted screw (rise up) | No               |
|            | 16 outputs   | 1 MIL connectors            | NPN      | A                  | XW2Z-□□□X          | XW2K-20G-T                               | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□X-R        | XW2K-20G-O16B-OUT                        | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2D-20G6                                | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□X          | XW2R-E20GD-T                             | Slotted screw (rise up) | No               |
| CJ1W-MD261 | 32 inputs    | 1 Fujitsu / OTAX connectors | NPN/PNP  | A                  | XW2Z-□□□B          | XW2K-40G-O32A                            | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□B          | XW2K-40G-O32A-IN                         | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□B          | XW2R-J34GD-C1                            | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□B          | XW2R-E34GD-C1                            | Slotted screw (rise up) | No               |
|            | 32 outputs   | 1 Fujitsu / OTAX connectors | NPN      | A                  | XW2Z-□□□B          | XW2K-40G-O32B                            | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□B          | XW2K-40G-O32B-OUT                        | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□B          | XW2R-J34GD-C3                            | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□B          | XW2R-E34GD-C3                            | Slotted screw (rise up) | No               |
| CJ1W-MD263 | 32 inputs    | 1 MIL connectors            | NPN/PNP  | A                  | XW2Z-□□□K          | XW2K-40G-O32C                            | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□K          | XW2K-40G-O32C-IN                         | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□K          | XW2R-J34GD-C2                            | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□K          | XW2R-E34GD-C2                            | Slotted screw (rise up) | No               |
|            | 32 outputs   | 1 MIL connectors            | NPN      | A                  | XW2Z-□□□K          | XW2K-40G-O32C                            | Push-In Plus            | No               |
|            |              |                             |          | A                  | XW2Z-□□□K          | XW2K-40G-O32C-OUT                        | Push-In Plus            | Yes              |
|            |              |                             |          | A                  | XW2Z-□□□K          | XW2R-J34GD-C4                            | Phillips screw          | No               |
|            |              |                             |          | A                  | XW2Z-□□□K          | XW2R-E34GD-C4                            | Slotted screw (rise up) | No               |

\* The box □ is replaced by the cable length.

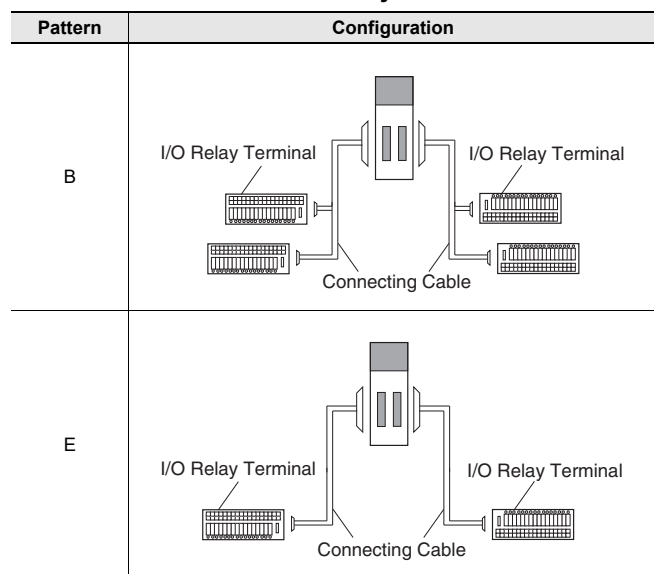
| Unit       | I/O capacity | Number of connectors | Polarity | Connection pattern | Connecting Cable * | Connector-Terminal Block Conversion Unit | Wiring method           | Common terminals |
|------------|--------------|----------------------|----------|--------------------|--------------------|--|-------------------------|------------------|
| CJ1W-MD563 | 32 inputs    | 1 MIL connectors     | ---      | A                  | XW2Z-□□□K          | XW2K-40G-O32C                            | Push-In Plus            | No               |
|            |              |                      |          | A                  | XW2Z-□□□K          | XW2K-40G-O32C-IN                         | Push-In Plus            | Yes              |
|            |              |                      |          | A                  | XW2Z-□□□K          | XW2R-J34GD-C2                            | Phillips screw          | No               |
|            |              |                      |          | A                  | XW2Z-□□□K          | XW2R-E34GD-C2                            | Slotted screw (rise up) | No               |
|            | 32 outputs   | 1 MIL connectors     | ---      | A                  | XW2Z-□□□K          | XW2K-40G-O32C                            | Push-In Plus            | No               |
|            |              |                      |          | A                  | XW2Z-□□□K          | XW2K-40G-O32C-OUT                        | Push-In Plus            | Yes              |
|            |              |                      |          | A                  | XW2Z-□□□K          | XW2R-J34GD-C4                            | Phillips screw          | No               |
|            |              |                      |          | A                  | XW2Z-□□□K          | XW2R-E34GD-C4                            | Slotted screw (rise up) | No               |

\* The box □ is replaced by the cable length.



### 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  |              |                                   |                | Connection pattern | Connecting Cables |                   | I/O Relay Terminals      |            |                   |                |
|------------|--------------|-----------------------------------|----------------|--------------------|-------------------|-------------------|--------------------------|------------|-------------------|----------------|
| Model      | I/O capacity | External connectors               | Polarity       |                    | Model *1          | Quantity required | Model                    | I/O points | Quantity required | Wiring method  |
| CJ1W-MD231 | 16 inputs    | 1 Fujitsu / OTAX connector (24 p) | NPN/PNP        | E                  | XW2Z-R□C          | 1                 | G70V-SID16P(-1)(-C16) *2 | 16         | 1                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G7TC-ID/IA16             | 16         |                   | Screw terminal |
|            | 16 outputs   | 1 Fujitsu / OTAX connector (24 p) | NPN (Sinking)  |                    | XW2Z-R□C          | 1                 | G70V-SOC16P(-C4)         | 16         | 1                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G7TC-OC16                | 16         |                   | Screw terminal |
|            |              |                                   |                |                    |                   |                   | G70D-SOC/FOM16           | 16         |                   |                |
|            |              |                                   |                |                    |                   |                   | G70D-VSOC16/VFOM16       | 16         |                   |                |
| CJ1W-MD232 | 16 inputs    | 1 MIL connector (20 p)            | NPN/PNP        | E                  | XW2Z-RO□C         | 1                 | G70V-SID16P(-1)(-C16) *2 | 16         | 1                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G7TC-ID/IA16             | 16         |                   | Screw terminal |
|            | 16 outputs   | 1 MIL connector (20 p)            | PNP (Sourcing) |                    | XW2Z-RI□C         | 1                 | G70V-SOC16P-1(-C4)       | 16         | 1                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G70A-ZOC16-4 *4          | 16         |                   | Screw terminal |
|            |              |                                   |                |                    |                   |                   | G70D-SOC/FOM16-1         | 16         |                   |                |
|            |              |                                   |                |                    | XW2Z-RO□C         | 1                 | G7TC-OC16-1              | 16         |                   |                |
| CJ1W-MD233 | 16 inputs    | 1 MIL connector (20 p)            | NPN/PNP        | E                  | XW2Z-RO□C         | 1                 | G70V-SID16P(-1)(-C16) *2 | 16         | 1                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G7TC-ID/IA16             | 16         |                   | Screw terminal |
|            | 16 outputs   | 1 MIL connector (20 p)            | NPN (Sinking)  |                    | XW2Z-RO□C         | 1                 | G70V-SOC16P(-C4)         | 16         | 1                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G7TC-OC16                | 16         |                   | Screw terminal |
|            |              |                                   |                |                    |                   |                   | G70D-SOC/FOM16           | 16         |                   |                |
|            |              |                                   |                |                    |                   |                   | G70D-VSOC16/VFOM16       | 16         |                   |                |
| CJ1W-MD261 | 32 inputs    | 1 Fujitsu / OTAX connector (40 p) | NPN/PNP        | B                  | XW2Z-RI□C-□       | 1                 | G70V-SID16P(-1)(-C16) *2 | 16         | 2                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G7TC-ID/IA16             | 16         |                   | Screw terminal |
|            | 32 outputs   | 1 Fujitsu / OTAX connector (40 p) | NPN (Sinking)  |                    | XW2Z-RO□C-□       | 1                 | G70V-SOC16P(-C4)         | 16         | 2                 | Push-in spring |
|            |              |                                   |                |                    |                   |                   | G7TC-OC16                | 16         |                   | Screw terminal |
|            |              |                                   |                |                    |                   |                   | G70D-SOC/FOM16           | 16         |                   |                |
|            |              |                                   |                |                    |                   |                   | G70D-VSOC16/VFOM16       | 16         |                   |                |
|            |              |                                   |                |                    |                   |                   | G70A-ZOC16-3 *4          | 16         |                   |                |
|            |              |                                   |                |                    |                   |                   | G70R-SOC08 *3            | 8          |                   |                |

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

\*2. Inputs can be either NPN or PNP.

\*3. In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.

\*4. The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately.

In addition, an G70A-ZOC16-3/4 will be SPDT × 16 points with G2R relays.

| I/O Units  |              |                        |               | Connection pattern | Connecting Cables |                   | I/O Relay Terminals      |            |                   |                |
|------------|--------------|------------------------|---------------|--------------------|-------------------|-------------------|--------------------------|------------|-------------------|----------------|
| Model      | I/O capacity | External connectors    | Polarity      |                    | Model *1          | Quantity required | Model                    | I/O points | Quantity required | Wiring method  |
| CJ1W-MD263 | 32 inputs    | 1 MIL connector (40 p) | NPN/PNP       | B                  | XW2Z-RO□-□-D1     | 1                 | G70V-SID16P(-1)(-C16) *2 | 16         | 2                 | Push-in spring |
|            |              |                        |               |                    |                   |                   | G7TC-ID/IA16             | 16         |                   | Screw terminal |
|            | 32 outputs   | 1 MIL connector (40 p) | NPN (Sinking) |                    | XW2Z-RO□-□-D1     | 1                 | G70V-SOC16P(-C4)         | 16         | 2                 | Push-in spring |
|            |              |                        |               |                    |                   |                   | G7TC-OC16                | 16         |                   | Screw terminal |
|            |              |                        |               |                    |                   |                   | G70D-SOC/FOM16           | 16         |                   |                |
|            |              |                        |               |                    |                   |                   | G70D-VSOC16/VFOM16       | 16         |                   |                |
|            |              |                        |               |                    |                   |                   | G70A-ZOC16-3 *4          | 16         |                   |                |
|            |              |                        |               |                    |                   |                   | G70R-SOC08 *3            | 8          |                   |                |

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

\*2. Inputs can be either NPN or PNP.

\*3. G70R-SOC08 no longer available to order. In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.

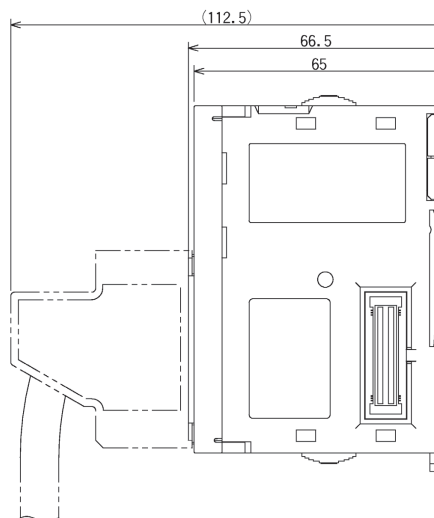
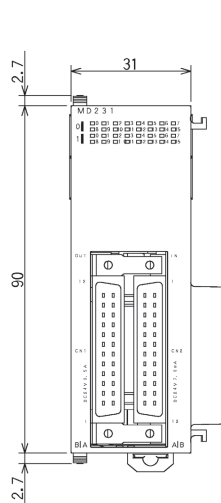
\*4. The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately.  
In addition, an G70A-ZOC16-3/4 will be SPDT × 16 points with G2R relays.

## Dimensions

### 32-point Units (Mixed I/O Units)

With Fujitsu / OTAX-compatible connector (24-pin × 2)

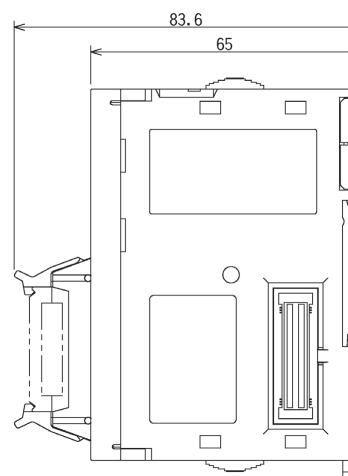
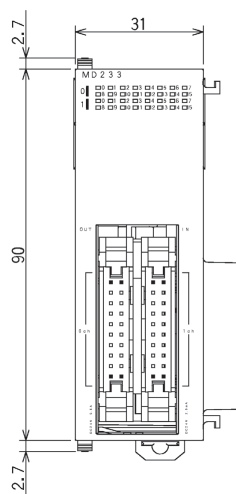
CJ1W-MD231



With MIL connector (20-pin × 2)

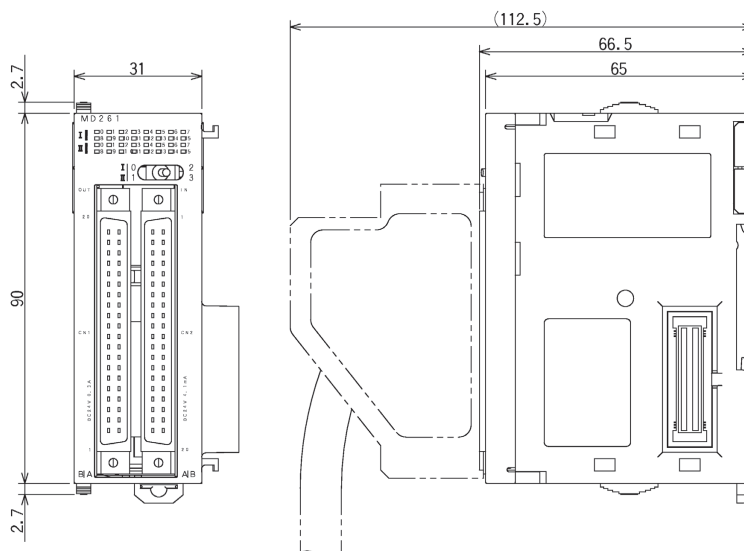
CJ1W-MD232

CJ1W-MD233



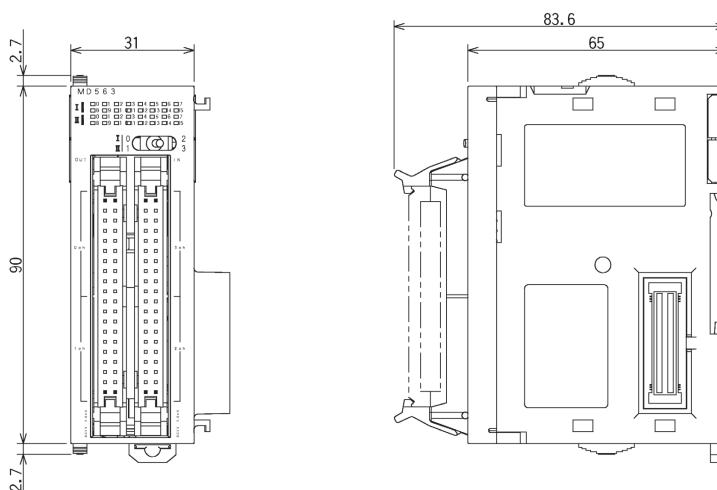
## 64-point Units (Mixed I/O Units)

With Fujitsu / OTAX-compatible connector (40-pin × 2)  
CJ1W-MD261



With MIL connector (40-pin × 2)

CJ1W-MD263  
CJ1W-MD563



## Related Manuals

| Name   | Cat. No. | Contents  |
|--|----------|---|
| NJ-series<br>CPU Unit Hardware User's Manual<br>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"> <li>• Features and system configuration</li> <li>• Introduction</li> <li>• Part names and functions</li> <li>• General specifications</li> <li>• Installation and wiring</li> <li>• Maintenance and inspection</li> </ul> Use this manual together with the NJ-series CPU Unit Software User's Manual (Cat. No. W501). |
| CJ Series<br>CJ1H-CPU□□H-R, CJ1G/H-CPU□□H, CJ1G-CPU□□P,<br>CJ1G-CPU□□, CJ1M-CPU□□<br>Programmable Controllers Operation Manual | W393     | Provides an outlines of and describes the design, installation, maintenance, and other basic operations for the CJ-series PLCs.   |
| CJ-series<br>CJ2H-CPU6□-EIP, CJ2H-CPU6□, CJ2M-CPU□□<br>CJ2 CPU Unit Hardware User's Manual                                     | W472     | Describes the following for CJ2 CPU Units: <ul style="list-style-type: none"> <li>• Overview and features</li> <li>• Basic system configuration</li> <li>• Part nomenclature and functions</li> <li>• Mounting and setting procedure</li> <li>• Remedies for errors</li> </ul> Also refer to the Software User's Manual (W473).   |

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