CJ-series Output Units

CJ1W-OC/OA/OD

CSM CJ1W-OUTPUT DS E 8 8

A Wide Range of Basic Output Units for High Speed Output and Different Applications

- These Output Units receive the results of output instructions from the CPU Unit and perform ON/OFF control for external devices.
- High-speed Output models CJ1W-OD213 and CJ1W-OD234 can help to increase system throughput.





CJ1W-OD213

CJ1W-OD234

Features

- High-speed output models are available, meeting versatile applications.
 ON Response Time: 15μs, OFF Response Time: 80μs
- Output Units are available with any of three output types: relay contact outputs, triac outputs, or transistor outputs.
- For transistor outputs, select from sinking outputs or sourcing outputs.
- Output Units with load short-circuit protection are also available. *1
- Select the best interface for each application: Fujitsu connectors or MIL connectors. *2
- A wide variety of Connector-Terminal Block Conversion Units are available to allow you to easily wire external output devices.
- *1. The following Units have load short-circuit protection: CJ1W-OC202, CJ1W-OD204, CJ1W-OD212, and CJ1W-OD232.
- *2. Available for models with 32 outputs or 64 outputs

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.

Output Units

| Unit type | Product | | | Specifications | | | No. of words | consu | rrent mption A) | Model | Standards |
|---------------------------|----------------------------------|----------------|----------------------------------|---|------------------------|--------------------------------|-----------------|-------|-----------------------|------------|------------------|
| | name | Output type | I/O points | Maximum switching capacity | Commons | External connection | allocated | 5 V | 24 V | | |
| | Relay Contact Output Units | _ | 8 outputs | 250 VAC/24 VDC, 2 A | Independen t contacts | Removable terminal block | 1 words | 0.09 | 0.048 max. | CJ1W-OC201 | |
| | | _ | 16 outputs | 250 VAC/24 VDC, 2 A | 16 points, 1 common | Removable terminal block | 1 words | 0.11 | 0.096 max. | CJ1W-OC211 | |
| | Triac Output Unit | - | 8 outputs | 250 VAC, 0.6 A | 8 points, 1 common | Removable terminal block | 1 words | 0.22 | _ | CJ1W-OA201 | UC1, N, L, CE |
| | | Sinking | 8 outputs | 12 to 24 VDC, 2 A | 4 points, 1 common | Removable terminal block | 1 words | 0.09 | - | CJ1W-OD201 | |
| | | Sinking | 8 outputs | 12 to 24 VDC, 0.5 A | 8 points, 1 common | Removable terminal block | 1 words | 0.10 | _ | CJ1W-OD203 | |
| | | Sinking | 16 outputs | 12 to 24 VDC, 0.5 A | 16 points, 1 common | Removable terminal block | 1 words | 0.10 | _ | CJ1W-OD211 | |
| CJ1 Basic I/O Units | Transistor Output Units | Sinking | 16 outputs (High speed) | 24 VDC, 0.5 A | 16 points, 1 common | Removable terminal block | 1 words | 0.15 | _ | CJ1W-OD213 | N, L, CE |
| | | Sinking | 32 outputs | 12 to 24 VDC, 0.5 A | 16 points, 1 common | Fujitsu connector | 2 words | 0.14 | - | CJ1W-OD231 | UC1, N, L, |
| | | Sinking | 32 outputs | 12 to 24 VDC, 0.5 A | 16 points, 1 common | MIL connector | 2 words | 0.14 | - | CJ1W-OD233 | CE |
| | | Sinking | 32 outputs (High speed) | 24 VDC, 0.5 A | 16 points, 1 common | MIL connector | 2 words | 0.22 | _ | CJ1W-OD234 | N, L, CE |
| | | Sinking | 64 outputs | 12 to 24 VDC, 0.3 A | 16 points, 1 common | Fujitsu connector | 4 words | 0.17 | _ | CJ1W-OD261 | |
| | | Sinking | 64 outputs | 12 to 24 VDC, 0.3 A | 16 points, 1 common | MIL connector | 4 words | 0.17 | _ | CJ1W-OD263 | |
| | | Sourcing | 8 outputs | 24 VDC, 2 A Short-circuit protection | 4 points, 1 common | Removable terminal block | 1 words | 0.11 | _ | CJ1W-OD202 | |
| | | Sourcing | 8 outputs | 24 VDC, 0.5 A Short-circuit protection | 8 points, 1 common | Removable terminal block | 1 words | 0.10 | _ | CJ1W-OD204 | UC1, N, L, CE |
| | | Sourcing | 16 outputs | 24 VDC, 0.5 A Short-circuit protection | 16 points, 1 common | Removable terminal block | 1 words | 0.10 | _ | CJ1W-OD212 | |
| | | Sourcing | 32 outputs | 24 VDC, 0.5 A Short-circuit protection | 16 points, 1 common | MIL connector | 2 words | 0.15 | _ | CJ1W-OD232 | 1 |
| | | Sourcing | 64 outputs | 12 to 24 VDC, 0.3 A | 16 points, 1 common | MIL connector | 4 words | 0.17 | _ | CJ1W-OD262 | |

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 Connectors for 32-input, 32-output, 64-input, 64-output, 32-input/32-output, and 16-input/16-output Units

| Name | Connection | Rem | arks | Applicable Units | Model | Standards |
|----------------------|-----------------|--|---|--|------------|--------------|
| 40-pin Connectors | Soldered | FCN-361J040-AU FCN-360C040-J2 | Connector Connector Cover | Fujitsu Connectors: CJ1W-ID231(32 inputs): 1 per Unit | C500-CE404 | |
| | Crimped | FCN-363J040 FCN-363J-AU FCN-360C040-J2 | Housing Contactor Connector Cover | CJ1W-ID261 (64 inputs): 2 per Unit CJ1W-OD231 (32 outputs): 1 per Unit CJ1W-OD261 (64 outputs): 2 per Unit | C500-CE405 | |
| | Pressure welded | FCN-367J040-AU/F | | CJ1W-MD261 (32 inputs, 32 outputs): 2 per Unit | C500-CE403 | |
| | Soldered | FCN-361J024-AU FCN-360C024-J2 | Connector Connector Cover | | C500-CE241 | - |
| 24-pin Connectors | Crimped | FCN-363J024 FCN-363J-AU FCN-360C024-J2 | Socket Contactor Connector Cover | Fujitsu Connectors: CJ1W-MD231 (16 inputs, 16 outputs): 2 per Unit | C500-CE242 | |
| | Pressure welded | FCN-367J024-AU/F | | | 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: CJ1W-ID232/233 (32 inputs): 1 per Unit CJ1W-OD232/233/234 (32 outputs):1 per Unit | XG4M-4030-T | | |
| | Crimped | - | CJ1W-ID262 (64 inputs): 2 per Unit CJ1W-OD262/263 (64 outputs): 2 per Unit CJ1W-MD263/563 (32 inputs, 32 outputs): 2 per Unit | XG5N-401* | _ | |
| 20-pin | Pressure welded | FRC5-AO20-3TOS | MIL Connectors: | XG4M-2030-T | | |
| Connectors | Crimped | - | CJ1W-MD232/233 (16 inputs, 16 outputs): 2 per Unit | XG5N-201* | | |

^{*} Crimp Contacts are also required. Refer to page 31 for details.

Applicable Connector-Terminal Block Conversion Units

| | | Number | Wiring | Terminal | | Size | | Mou | nting | Common | Bleeder | | | | |
|------|------------|-----------------|-------------------------|--------------------------|---------------|-------------|---------------|--------------|--------|-----------|---------|------------|--|---------------|-----------|
| Гуре | Series | Number of poles | es method | type | Depth (mm) | Height (mm) | Width (mm) | DIN Track | Screws | terminals | | Indicators | I/O Units | Model * | Standards |
| | | | Phillips screw | | | | | | | | | | CJ1W-OD231 CJ1W-OD261 | XW2R-J34GD-C3 | |
| | | | | МЗ | 50 | 48.05 1 | 130.7 | | | No | No | No | CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263 | XW2R-J34GD-C4 | |
| | Cs XW2R 34 | | Slotted screw (rise up) | | | | | | | | | | CJ1W-OD231 CJ1W-OD261 | XW2R-E34GD-C3 | |
| LCs | | | (lise up) | M3 (European type) | 50 | 44.81 | 98.5 | | /es No | | | | CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263 | XW2R-E34GD-C4 | _ |
| | | | Push-in spring | | | | | | | | | | CJ1W-OD231 CJ1W-OD261 | XW2R-P34GD-C3 | |
| | | | Spining . | Clamp | 50 | 44.81 | 98.5 | | | | | | CJ1W-OD232 CJ1W-OD233 CJ1W-OD234 CJ1W-OD262 CJ1W-OD263 | XW2R-P34GD-C4 | |

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

Connecting Cables for Connector-Terminal Block Conversion Units

| Appearance | Connectors | Cable lenght [m] | Model |
|------------|---|------------------|-----------|
| XW2Z-□□□B | | 0.5 | XW2Z-050B |
| | | 1 | XW2Z-100B |
| | One 40-pin Fujitsu Connector to One 40-pin MIL Connector | 1.5 | XW2Z-150B |
| | One 40-pin Fujiisa Connector to One 40-pin Mile Connector | 2 | XW2Z-200B |
| | | 3 | XW2Z-300B |
| | | 5 | XW2Z-500B |
| XW2Z-□□□K | | 0.5 | XW2Z-C50K |
| | | 1 | XW2Z-100K |
|)) | One 40-pin MIL Connector to One 40-pin MIL Connector | 1.5 | XW2Z-150K |
| | One 40-pin will Connector to One 40-pin will Connector | 2 | XW2Z-200K |
| | | 3 | XW2Z-300K |
| | | 5 | XW2Z-500K |

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

Applicable I/O Relay Terminals

| | | | | s | pecifications | | | Size (horizontal mounting) Mounting | | | | | | | | | | |
|-------------------------------|--|---------|----------------------|-------------|---------------------|------------------------------|--|-------------------------------------|------------------|------------------|------------------|-----|----------------------|--------------------------------|-----------------|--|-------------|--|
| Туре | Series | Classi | fication | Polarity | Number of points | Rated ON current at contacts | Rated voltage | Horizontal (mm) | Vertical (mm) | Height (mm) | DIN Track Screws | | Model | Standards | | | | |
| | | | | NPN | | | | | | | | | G70V-SID16P *4 | | | | | |
| | | 1 | DC | PNP | 16 | 50 4 | | | | | | | G70V-SID16P-1 *4 | | | | | |
| Push-In | G70V | Inputs | inputs | NPN | (SPSTNO × 16) | 50 mA | | | | | | | G70V-SID16P-C16 *5 | | | | | |
| Plus | Manufacture Co. | | | PNP | | | 24 VDC | 143 | 90 | 56 | Yes | Yes | G70V-SID16P-1-C16 *5 | UC, CE (TÜV | | | | |
| terminal | | | | NPN | | | 24 VDC | 143 | 90 | 36 | res | res | G70V-SOC16P *4 | certified) | | | | |
| block | | Outputs | Relay | PNP | 16 | 6 A/point, 10 A/ | | | | | | | G70V-SOC16P-1 *4 |] | | | | |
| | | Outputs | outputs | NPN | (SPDT × 16) | common | | | | | | | G70V-SOC16P-C4 *6 | | | | | |
| | | | | PNP | | | | | | | | | G70V-SOC16P-1-C4 *6 | | | | | |
| | | | AC | | | | 100/(110) VAC | | | | | | G7TC-IA16 AC100/110 | | | | | |
| | | | inputs | | 40 | | 200/(220) VAC | | | | | | G7TC-IA16 AC200/220 |] | | | | |
| | | Inputs | DC | NPN | 16 (SPSTNO × 16) | 1A | 12 VDC | 182 | | | | | G7TC-ID16 DC12 |] | | | | |
| | G7TC | | inputs | | (3F31N0 x 10) | | 24 VDC | | | | | | G7TC-ID16 DC24 | | | | | |
| | Time. | | | | | | 100/110 VDC | | | | | | G7TC-ID16 DC100/110 | | | | | |
| Standard | | | | NPN | 8 | | 12 VDC | 102 | 85 68 | 68 | Yes | No | G7TC-OC08 DC12 | U, C | | | | |
| | A CHARLES TO A CONTRACT OF THE PARTY OF THE | | | | (SPSTNO × 8) | | 24 VDC | 182 | | | | | G7TC-OC08 DC24 | | | | | |
| | 952 | Outputs | Relay | | 16 | | 12 VDC | | | | | | G7TC-OC16 DC12 | | | | | |
| | | Outputs | outputs | | (SPSTNO × 16) | | 24 VDC | | | | | | G7TC-OC16 DC24 | | | | | |
| | | | | PNP | 16 | | 12 VDC | 102 | | | | | G7TC-OC16-1 DC12 | | | | | |
| | | | | 1 141 | (SPSTNO × 16) | | 24 VDC | | | | | | G7TC-OC16-1 DC24 | | | | | |
| High- | G70A *1 (Socket only) | Inputs | | NPN/ PNP | 16 (SPDT × 16 | 100 mA | 110 VDC max., 240 VAC max. *2 | | | | | | G70A-ZOC16-5 | U, C, CE | | | | |
| capacity socket | | Outputs | | Relay | NPN | possible with G2R Relays) | 10 A (Ter- minal | 24 VDC | 234 | 75 | 64 | Yes | No | G70A-ZOC16-3 | (VDE certified) | | | |
| | | | outputs | PNP | | block al- lowable | 24 VDC | | | | | | G70A-ZOC16-4 | | | | | |
| | Vertical type G70D-V | | | | | | Relay outputs | | | 5 A or 3 A *3 | | | | | | | G70D-VSOC16 | |
| | | | MOSFET relay outputs | NPN | 16 (SPSTNO × 16) | 0.3 A | | 135 | 46 | 81 | Yes | Yes | G70D-VFOM16 | U, C, CE (VDE certified) | | | | |
| Space- | Flat type G70D | Outputs | | NPN | 8 (SPSTNO×8) | 5 A | 24 VDC | 68 | 93 | 44 | | | G70D-SOC08 | | | | | |
| saving | THE PARTY OF THE P | | Relay outputs | INFIN | 16 (SPSTNO × 16) | 3 A | | | | | | | G70D-SOC16 | | | | | |
| | THE PROPERTY OF | | | PNP | 16 (SPSTNO × 16) | 3 A | | 156 | 51 | 39 | Yes | Yes | G70D-SOC16-1 | - | | | | |
| | 3 | | MOSFET | NPN | 16 | | | | | | | | G70D-FOM16 | 1 | | | | |
| | THI HULLIH | | relay outputs | PNP | (SPSTNO × 16) | 0.3 A | | | | | | | G70D-FOM16-1 *7 | *7 | | | | |
| High- | G70R | | | | | | | | | | | | | | | | | |
| capacity, space- saving | | 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 leng | gth L (mm) | Models |
|------------------------------|----------------------------|--------------------|---------------------------------|------------|------------|-------------------|
| | | | A side B side | 1,0 | 000 | XW2Z-R100C |
| | Cables with Connectors | | Device end I/O Relay Terminal | 1,5 | 500 | XW2Z-R150C |
| Fujitsu connectors (24 pins) | (1:1) | 16 I/O points | | 2,0 | 000 | XW2Z-R200C |
| | XW2Z-R□C | | | 3,0 | 000 | XW2Z-R300C |
| | | | □ | 5,0 | 000 | XW2Z-R500C |
| | | | A side B side | (A) 1,000 | (B) 750 | XW2Z-RI100C-75 |
| | | | Device end I/O Relay Terminal | (A) 1,500 | (B) 1,250 | XW2Z-RI150C-125 |
| | | 32 input points | (A) — | (A) 2,000 | (B) 1,750 | XW2Z-RI200C-175 |
| | Cables with Connectors | | | (A) 3,000 | (B) 2,750 | XW2Z-RI300C-275 |
| | (1:2) | | | (A) 5,000 | (B) 4,750 | XW2Z-RI500C-475 |
| ujitsu connectors (40 pins) | V44/07 PUE 0 E | | | (A) 1,000 | (B) 750 | XW2Z-RO100C-75 |
| | XW2Z-RI□C-□ XW2Z-RO□C-□ | | | (A) 1,500 | (B) 1,250 | XW2Z-RO150C-125 |
| | X | 32 output points | | (A) 2,000 | (B) 1,750 | XW2Z-RO200C-175 |
| | | oz odipat pomio | (B) — | (A) 3,000 | (B) 2,750 | XW2Z-RO300C-275 |
| | | | Straight length (without bends) | (A) 5,000 | (B) 4,750 | XW2Z-RO500C-475 |
| | Cables with Connectors | | A side B side | 25 | 50 | XW2Z-RI25C |
| All (00 - i) | (1:1) | 16 I/O points | Device end I/O Relay Terminal | 50 | 00 | XW2Z-RI50C |
| IIL connectors (20 pins) | XW2Z-RI□C | | | 25 | 50 | XW2Z-RO25C |
| | XW2Z-RO□C | | | 50 | 00 | XW2Z-RO50C |
| | | | | (A) 500 | (B) 250 | XW2Z-RO50-25-D1 |
| | | | | (A) 750 | (B) 500 | XW2Z-RO75-50-D1 |
| | | | A side B side | (A) 1,000 | (B) 750 | XW2Z-RO100-75-D1 |
| | | | Device end I/O Relay Terminal | (A) 1,500 | (B) 1,250 | XW2Z-RO150-125-D1 |
| | | | | (A) 2,000 | (B) 1,750 | XW2Z-RO200-175-D1 |
| | Cables with Connectors | | | (A) 3,000 | (B) 2,750 | XW2Z-RO300-275-D1 |
| (40 m² m) | (1:2) | 00.1/0 | | (A) 5,000 | (B) 4,750 | XW2Z-RO500-475-D1 |
| IIL connectors (40 pins) | XW2Z-RO□-□-D1, | 32 I/O points | | (A) 500 | (B) 250 | XW2Z-RI50-25-D1 |
| | XW2Z-RI□-□-D1 | | | (A) 750 | (B) 500 | XW2Z-RI75-50-D1 |
| | | | | (A) 1,000 | (B) 750 | XW2Z-RI100-75-D1 |
| | | | (B) | (A) 1,500 | (B) 1,250 | XW2Z-RI150-125-D1 |
| | | | Straight length (without bends) | (A) 2,000 | (B) 1,750 | XW2Z-RI200-175-D1 |
| | | | | (A) 3,000 | (B) 2,750 | XW2Z-RI300-275-D1 |
| | | | | (A) 5,000 | (B) 4,750 | XW2Z-RI500-475-D1 |

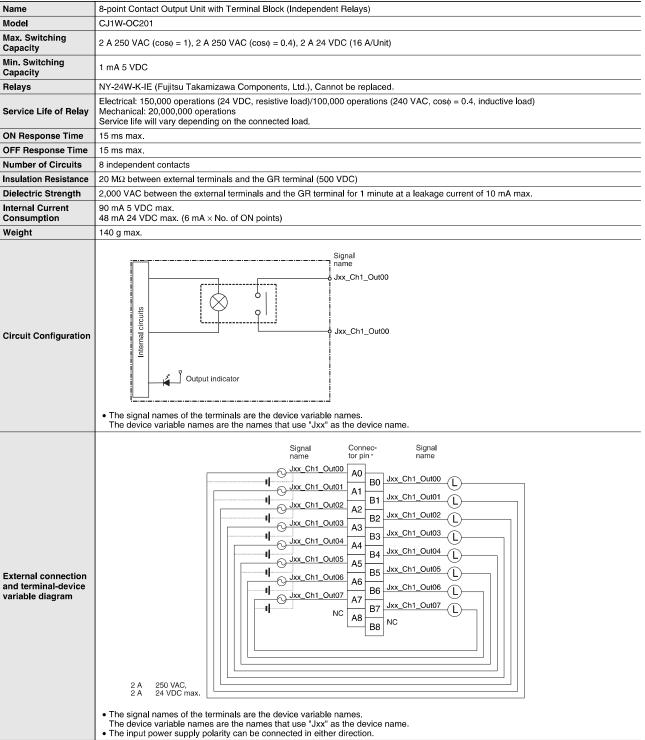
Note: Refer to the Datasheet for the XW2Z-R Cables for I/O Relay Terminals (Cat. No. G126).

Mountable Racks

| | NJ s | system | CJ system | (CJ1, CJ2) | CP1H system | NSJ s | ystem |
|------------|----------|----------------|-----------|------------------------|---------------|----------------|------------------------|
| Model | CPU Rack | Expansion Rack | CPU Rack | Expansion Backplane | CP1H PLC | NSJ Controller | Expansion Backplane |
| CJ1W-OC201 | | | | | | | |
| CJ1W-OC211 | | | | | | | |
| CJ1W-OA201 | | | | | | | |
| CJ1W-OD201 | | | | | | | |
| CJ1W-OD203 | | | | | | | |
| CJ1W-OD211 | | | | | | | |
| CJ1W-OD213 | | | | | | | |
| CJ1W-OD231 | | 10 Units | | 10 Units | | | 10 Units |
| CJ1W-OD233 | 10 Units | (Per Expansion | 10 Units | (Per Expansion | Not Supported | Not Supported | (Per Expansion |
| CJ1W-OD234 | | Rack) | | Backplane) | | | Backplane) |
| CJ1W-OD261 | | | | | | | |
| CJ1W-OD263 | | | | | | | |
| CJ1W-OD202 | | | | | | | |
| CJ1W-OD204 | | | | | | | |
| CJ1W-OD212 | | | | | | | |
| CJ1W-OD232 | | | | | | | |
| CJ1W-OD262 | | | | | | | |

Specifications

CJ1W-OC201 Contact Output Unit (Independent Relays, 8 Points)



^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units

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

CJ1W-OC211 Contact Output Unit (16 Points) Name 16-point Contact Output Unit with Terminal Block Model CJ1W-OC211 Max. Switching 2 A 250 VAC ($\cos\phi = 1$), 2 A 250 VAC ($\cos\phi = 0.4$), 2 A 24 VDC (8 A/Unit) Capacity Min. Switching 1 mA 5 VDC Capacity NY-24W-K-IE (Fujitsu Takamizawa Components, Ltd.), Cannot be replaced. Relays Electrical: 150,000 operations (24 VDC, resistive load)/ 100,000 operations (250 VAC, cos\phi = 0.4, inductive load) Mechanical: 20,000,000 operations Service life will vary depending on the connected load. Service Life of Relay ON Response Time 15 ms max. **OFF Response Time** 15 ms max. **Number of Circuits** 16 points/common, 1 circuit **Insulation Resistance** 20 $M\Omega$ between external terminals and the GR terminal (500 VDC) Dielectric Strength 2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. **Internal Current** 110 mA 5 VDC max. Consumption 96 mA 24 VDC max. (6 mA × No. of ON points) Weight 170 g max. Signal name Jxx_Ch1_Out00 Jxx_Ch1_Out15 Internal circuits COM Circuit Configuration СОМ Output indicator • 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 Connector pin * L) Jxx_Ch1_Out00 A0 В0 Α1 B1 A2 _Ch1_Out05_(L В2 Jxx_Ch1_Out06 Ch1_Out07 ВЗ **External connection** Α4 Jxx Ch1 Out09 and terminal-device B4 Jxx_Ch1_Out10 A5 variable diagram B5 В6 Α7 В7 2 A 250 VAC, 2 A 24 VDC max. COM **A**8 В8

• 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.

^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

CJ1W-OA201 Triac Output Unit (8 Points) Name 8-point Triac Output Unit with Terminal Block Model CJ1W-OA201 Max. Switching 0.6 A 250 VAC, 50/60 Hz (2.4 A/Unit) Capacity 15 A (pulse width: 10 ms max.) Max. Inrush Current Min. Switching 50 mA 75 VAC Capacity Leakage Current 1.5 mA (200 VAC) max. **Residual Voltage** 1.6 VAC max. **ON Response Time** 1 ms max. **OFF Response Time** 1/2 of load frequency + 1 ms or less. **Number of Circuits** 8 (8 points/common, 1 circuit) **Surge Protector** C.R Absorber + Surge Absorber 5 A (1/common, 1 used) **Fuses** The fuse cannot be replaced by the user. Insulation Resistance 20 $M\Omega$ between the external terminals and the GR terminal (500 VDC) Dielectric Strength 2,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. Internal Current Consumption Weight 150 g max. Internal circuits Jxx_Ch1_Out00 Ċ Jxx Ch1_Out07 **Circuit Configuration** ф сом Fuse • 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. Connec-Signal name NC Α0 Jxx_Ch1_Out00 В0 NC Α1 Jxx_Ch1_Out01 В1 NC Α2 Jxx_Ch1_Out02 В2 АЗ Jxx_Ch1_Out03 **B**3 **External connection** NC 250 VAC max. and terminal-device Α4 Jxx_Ch1_Out04 B4 variable diagram NC Α5 Jxx_Ch1_Out05 **B**5 NC A6 Jxx_Ch1_Out06 В6 NC Α7 Jxx_Ch1_Out07 B7 NC Α8 СОМ В8 • The signal names of the terminals are the device variable names.

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

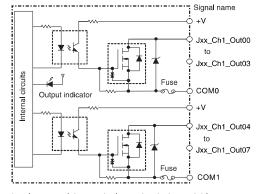
The device variable names are the names that use "Jxx" as the device name.

^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

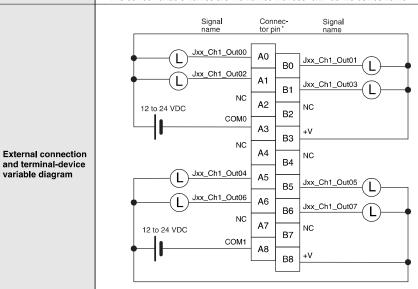
CJ1W-OD201 Transistor Output Unit (8 Points)

| Name | 8-point Transistor Output Unit with Terminal Block (Sinking Outputs) |
|---------------------------------|--|
| Model | CJ1W-OD201 |
| Rated Voltage | 12 to 24 VDC |
| Operating Load Voltage Range | 10.2 to 26.4 VDC |
| Maximum Load Current | 2.0 A/point, 8.0 A/Unit |
| Maximum Inrush Current | 10 A/point, 10 ms max. |
| Leakage Current | 0.1 mA max. |
| Residual Voltage | 1.5 V max. |
| ON Response Time | 0.5 ms max. |
| OFF Response Time | 1.0 ms max. |
| Insulation Resistance | 20 MΩ between the external terminals and the GR terminal (100 VDC) |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |
| Number of Circuits | 8 (4 points/common, 2 circuits) |
| Internal Current Consumption | 90 mA max. |
| Fuse | 6.3 A (1/common, 2 used) The fuse cannot be replaced by the user. |
| External Power Supply | 10.2 to 26.4 VDC, 10 mA min. |
| Weight | 110 g max. |
| | |

Circuit Configuration



• 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.



- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.

The signal names of the terminals are the device variable names.

The device variable names are the names that use "Jxx" as the device name.

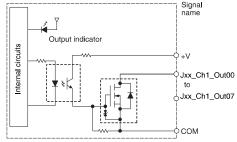
Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on

CJ1W-OD203 Transistor Output Unit (8 Points)

| Name | 8-point Transistor Output Unit with Terminal Block (Sinking Outputs) |
|---------------------------------|--|
| Model | CJ1W-OD203 |
| Rated Voltage | 12 to 24 VDC |
| Operating Load Voltage Range | 10.2 to 26.4 VDC |
| Maximum Load Current | 0.5 A/point, 4.0 A/Unit |
| Maximum Inrush Current | 4.0 A/point, 10 ms max. |
| Leakage Current | 0.1 mA max. |
| Residual Voltage | 1.5 V max. |
| ON Response Time | 0.1 ms max. |
| OFF Response Time | 0.8 ms max. |
| Insulation Resistance | $20~\text{M}\Omega$ between the external terminals and the GR terminal (100 VDC) |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |
| Number of Circuits | 8 (8 points/common, 1 circuit) |
| Internal Current Consumption | 100 mA max. |
| Fuse | None |
| External Power Supply | 10.2 to 26.4 VDC, 20 mA min. |
| Weight | 110 g max. |
| | |

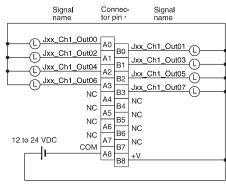
Circuit Configuration



The signal names of the terminals are the device variable names.

The device variable names are the names that use "Jxx" as the device name.

External connection and terminal-device variable diagram



- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- The signal names of the terminals are the device variable names.

The device variable names are the names that use "Jxx" as the device name.

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

^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

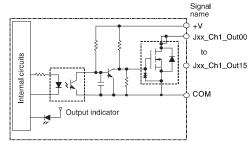
CJ1W-OD211 Transistor Output Unit (16 Points) Name 16-point Transistor Output Unit with Terminal Block (Sinking Outputs) Model CJ1W-OD211 12 to 24 VDC Rated Voltage **Operating Load** 10.2 to 26.4 VDC **Voltage Range Maximum Load** 0.5 A/point, 5.0 A/Unit Current **Maximum Inrush** 4.0 A/point, 10 ms max. Current Leakage Current 0.1 mA max. Residual Voltage 1.5 V max. **ON Response Time** 0.1 ms max. **OFF Response Time** Insulation Resistance 20 $M\Omega$ between the external terminals and the GR terminal (100 VDC) **Dielectric Strength** 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max **Number of Circuits** 16 (16 points/common, 1 circuit) Internal Current 5 VDC 100 mA max. Consumption Fuse None **External Power** 10.2 to 26.4 VDC, 20 mA min. Supply Weight 110 g max. Signal name Output indicator Internal circuits Jxx_Ch1_Out00 **Circuit Configuration** Jxx_Ch1_Out15 • 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. Signal Signal Jxx Ch1 Out00 Α0 В0 Jxx Ch1 Out02 Α1 B1 Α2 B2 _Ch1_Out07 ВЗ Jxx_Ch1_Out09 **External connection** and terminal-device **A**5 variable diagram B5 Jxx_Ch1_Out12 Α6 B6 Α7 Jxx_Ch1_Out15_(L B7 Α8 B8 12 to 24 VDC . When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed. • 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.

^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

CJ1W-OD213 Transistor Output Unit (16 Points)

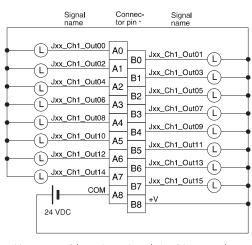
| Name | 16-point Transistor Output Unit with Terminal Block (Sinking Outputs) |
|---------------------------------|--|
| Model | CJ1W-OD213 |
| Rated Voltage | 24 VDC |
| Operating Load Voltage Range | 20.4 to 26.4 VDC |
| Maximum Load Current | 0.5 A/point, 5.0 A/Unit |
| Maximum Inrush Current | 4.0 A/point, 10 ms max. |
| Leakage Current | 0.1 mA max. |
| Residual Voltage | 1.5 V max. |
| ON Response Time | 15 μs max. |
| OFF Response Time | 80 μs max. |
| Insulation Resistance | 20 M Ω between the external terminals and the GR terminal (100 VDC) |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |
| Number of Circuits | 16 (16 points/common, 1 circuit) |
| Internal Current Consumption | 5 VDC 150 mA max. |
| Fuse | None |
| External Power Supply | 20.4 to 26.4 VDC, 55 mA min. |
| Weight | 110 g max. |
| | |

Circuit Configuration



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

External connection and terminal-device variable diagram

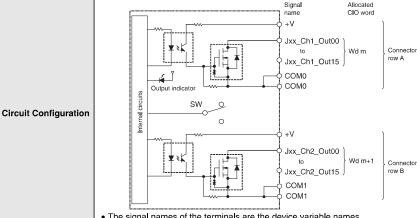


- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
 The signal names of the terminals are the device variable names.
- The device variable names are the names that use "Jxx" as the device name.

^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

CJ1W-OD231 Transistor Output Unit (32 Points)

| | • |
|---------------------------------|--|
| Name | 32-point Transistor Output Unit with Fujitsu Connector (Sinking Outputs) |
| Model | CJ1W-OD231 |
| Rated Voltage | 12 to 24 VDC |
| Operating Load Voltage Range | 10.2 to 26.4 VDC |
| Maximum Load Current | 0.5 A/point, 2.0 A/common, 4.0 A/Unit |
| Maximum Inrush Current | 4.0 A/point, 10 ms max. |
| Leakage Current | 0.1 mA max. |
| Residual Voltage | 1.5 V max. |
| ON Response Time | 0.1 ms max. |
| OFF Response Time | 0.8 ms max. |
| Insulation Resistance | $20~\text{M}\Omega$ between the external terminals and the GR terminal (100 VDC) |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |
| Number of Circuits | 32 (16 points/common, 2 circuits) |
| Internal Current Consumption | 5 VDC 140 mA max. |
| Fuse | None |
| External Power Supply | 10.2 to 26.4 VDC, 30 mA min. |
| Weight | 70 g max. |
| Accessories | None |
| | |



• 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.

Signal Allocated CIO word Jxx_Ch1_Out00 A1 B1 Jxx Ch2 Out00 A2 А3 12 to 24 VDC L) Jxx_Ch1_Out03 A4 12 to 24 VDC Wd m Wd m+1 Jxx_Ch2_Out06 L Jxx_Ch1_Out06 A8 A9 В9 A10 B10 Jxx_Ch1_Out08 External connection and terminal-device variable diagram Wd m Wd m+1 Jxx_Ch2_Out15 C Jxx Ch1 Out15 A18 B18 COM1 СОМ0 A19 B19 +V A20 B20

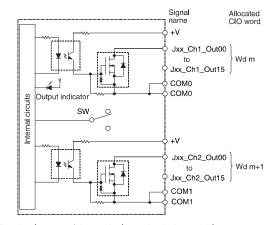
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
 Be sure to wire both terminals A9 and A19 (COM0).
 Be sure to wire both terminals B9 and B19 (COM1).
 Be sure to wire both terminals A10 and A20 (+V).
 Be sure to wire both terminals B10 and B20 (+V).

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.

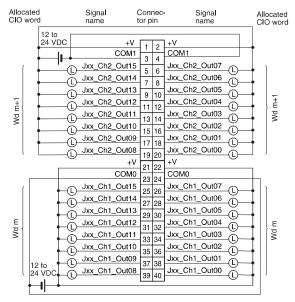
CJ1W-OD233 Transistor Output Unit (32 Points)

| Name | 32-point Transistor Output Unit with MIL Connector (Sinking Outputs) |
|---------------------------------|--|
| Model | CJ1W-OD233 |
| Rated Voltage | 12 to 24 VDC |
| Operating Load Voltage Range | 10.2 to 26.4 VDC |
| Maximum Load Current | 0.5 A/point, 2 A/common, 4 A/Unit |
| Maximum Inrush Current | 4.0 A/point, 10 ms max. |
| Leakage Current | 0.1 mA max. |
| Residual Voltage | 1.5 V max. |
| ON Response Time | 0.1 ms max. |
| OFF Response Time | 0.8 ms max. |
| Insulation Resistance | 20 M Ω between the external terminals and the GR terminal (100 VDC) |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. |
| Number of Circuits | 32 (16 points/common, 2 circuits) |
| Internal Current Consumption | 140 mA max. |
| Fuse | None |
| External Power Supply | 10.2 to 26.4 VDC, 30 mA min. |
| Weight | 70 g max. |
| | |

Circuit Configuration



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

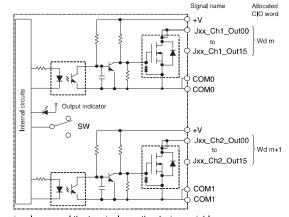


- **External connection** and terminal-device variable diagram
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
 Be sure to wire both terminals 23 and 24 (COM0).
- Be sure to wire both terminals 3 and 4 (COM1).
- Be sure to wire both terminals 21 and 22 (+V).
- Be sure to wire both terminals 1 and 2 (+V).
- 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.

CJ1W-OD234 Transistor Output Unit (32 Points)

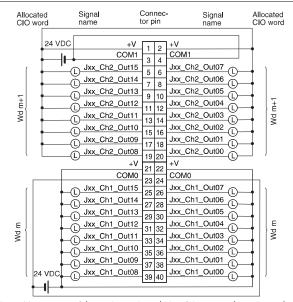
| Name | 32-point Transistor Output Unit with MIL Connector (Sinking Outputs) | |
|---------------------------------|--|--|
| Model | CJ1W-OD234 | |
| Rated Voltage | 24 VDC | |
| Operating Load Voltage Range | 20.4 to 26.4 VDC | |
| Maximum Load Current | 0.5 A/point, 2 A/common, 4 A/Unit | |
| Maximum Inrush Current | 4.0 A/point, 10 ms max. | |
| Leakage Current | 0.1 mA max. | |
| Residual Voltage | 1.5 V max. | |
| ON Response Time | 15 μs max. | |
| OFF Response Time | 80 µs max. | |
| Insulation Resistance | 20 MΩ between the external terminals and the GR terminal (100 VDC) | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | |
| Number of Circuits | 32 (16 points/common, 2 circuits) | |
| Internal Current Consumption | 220 mA max. | |
| Fuse | None | |
| External Power Supply | 20.4 to 26.4 VDC, 110 mA min. | |
| Weight | 70 g max. | |
| | | |

Circuit Configuration



The signal names of the terminals are the device variable names.

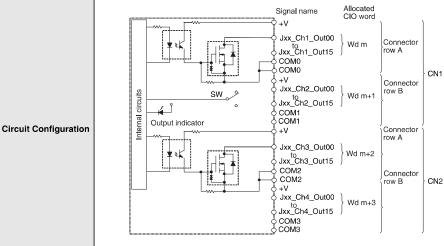
The device variable names are the names that use "Jxx" as the device name.



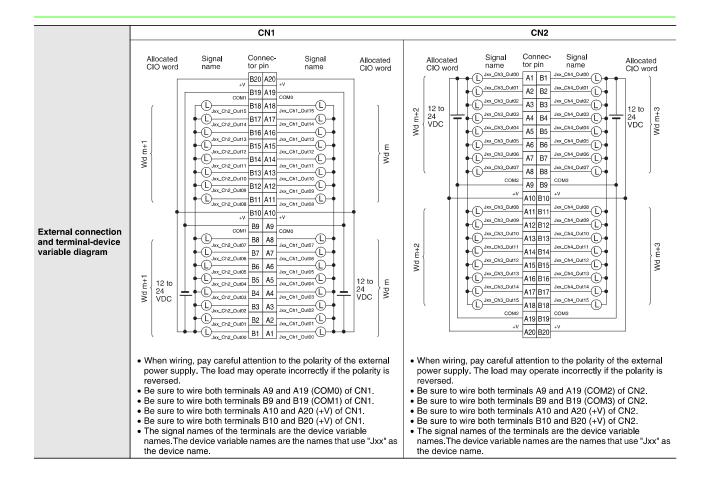
- **External connection** and terminal-device variable diagram
- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
 Be sure to wire both terminals 23 and 24 (COM0).
- Be sure to wire both terminals 3 and 4 (COM1).
- Be sure to wire both terminals 21 and 22 (+V).
- Be sure to wire both terminals 1 and 2 (+V).
- 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.

CJ1W-OD261 Transistor Output Unit (64 Points)

| Name | 64-point Transistor Output Unit with Fujitsu Connectors (Sinking Outputs) | | |
|--|--|--|--|
| Model | CJ1W-OD261 | | |
| Rated Voltage | 12 to 24 VDC | | |
| Operating Load Voltage Range | 10.2 to 26.4 VDC | | |
| Maximum Load Current | 0.3 A/point, 1.6 A/common, 6.4 A/Unit | | |
| Maximum Inrush Current | 3.0 A/point, 10 ms max. | | |
| Leakage Current | D.1 mA max. | | |
| Residual Voltage | 1.5 V max. | | |
| ON Response Time | 0.5 ms max. | | |
| OFF Response Time | 1.0 ms max. | | |
| Insulation Resistance | 20 M Ω between the external terminals and the GR terminal (100 VDC) | | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | | |
| Number of Circuits | 64 (16 points/common, 4 circuits) | | |
| Internal Current Consumption | 5 VDC, 170 mA max. | | |
| Fuse | None | | |
| External Power Supply | 10.2 to 26.4 VDC, 50 mA min. | | |
| Weight | 110 g max. | | |
| Accessories | None | | |
| The state of the s | | | |

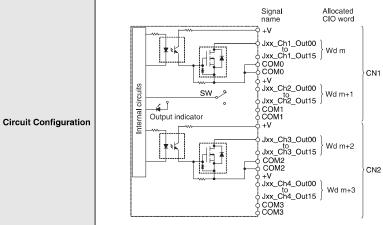


The signal names of the terminals are the device variable names.
 The device variable names are the names that use "Jxx" as the device name.



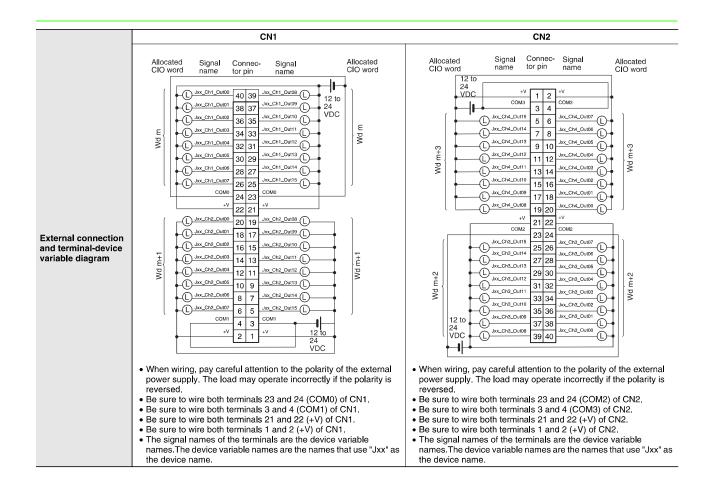
CJ1W-OD263 Transistor Output Unit (64 Points)

| Name | 64-point Transistor Output Unit with MIL Connectors (Sinking Outputs) | |
|---------------------------------|--|--|
| Model | CJ1W-OD263 | |
| Rated Voltage | 12 to 24 VDC | |
| Operating Load Voltage Range | 10.2 to 26.4 VDC | |
| Maximum Load Current | 0.3 A/point, 1.6 A/common, 6.4 A/Unit | |
| Maximum Inrush Current | 3.0 A/point, 10 ms max. | |
| Leakage Current | 0.1 mA max. | |
| Residual Voltage | 1.5 V max. | |
| ON Response Time | 0.5 ms max. | |
| OFF Response Time | 1.0 ms max. | |
| Insulation Resistance | 20 M Ω between the external terminals and the GR terminal (100 VDC) | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | |
| Number of Circuits | 64 (16 points/common, 4 circuits) | |
| Internal Current Consumption | 170 mA max. | |
| Fuse | None | |
| External Power Supply | 10.2 to 26.4 VDC, 50 mA min. | |
| Weight | 110 g max. | |
| | | |



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.



CJ1W-OD202 Transistor Output Unit (8 Points)

| Name | 8-point Transistor Output Unit with Terminal Block (Sourcing Outputs) | |
|----------------------------------|--|--|
| Model | CJ1W-OD202 | |
| Rated Voltage | 24 VDC | |
| Operating Load Voltage Range | 20.4 to 26.4 VDC | |
| Maximum Load Current | 2 A/point, 8 A/Unit | |
| Leakage Current | 0.1 mA max. | |
| Residual Voltage | 1.5 V max. | |
| ON Response Time | 0.5 ms max. | |
| OFF Response Time | 1.0 ms max. | |
| Load Short-circuit Protection | Detection current: 6 A min. Automatic restart after error clearance. | |
| Line Disconnection Detection | Detection current: 200 mA | |
| Insulation Resistance | $20~\text{M}\Omega$ between the external terminals and the GR terminal (100 VDC) | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | |
| Number of Circuits | 8 (4 points/common, 2 circuits) | |
| Internal Current Consumption | 110 mA max. | |
| Fuse | None | |
| External Power Supply | 20.4 to 26.4 VDC, 50 mA min. | |
| Weight | 120 g max. | |
| | | |

Signal name COM0 (+V) Jxx_Ch1_Out00 to Jxx_Ch1_Out03 0 V COM1 (+V) **Circuit Configuration** Jxx_Ch1_Out04 to Jxx_Ch1_Out07 0 V ERR indicator

- When overcurrent or line disconnection is detected, the ERR indicator will light, and the corresponding bit (two points per bit) in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE.
- 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.

Connector pin* Jxx_Ch1_Out00 Α0 Jxx_Ch1_Out01 B0 Jxx_Ch1_Out02 В1 NC Α2 NC B2 24 VDC 0 V АЗ COM0 (+V) ВЗ NC Α4 **External connection** NC B4 and terminal-device variable diagram В5 Jxx_Ch1_Out06 A6 В6 NC Α7 NC B7 0 V 24 VDC Α8 COM1 (+V) B8

- . When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- The signal names of the terminals are the device variable names.
- The device variable names are the names that use "Jxx" as the device name.

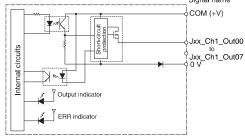
Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on

CJ1W-OD204 Transistor Output Unit (8 Points)

| Name | 8-point Transistor Output Unit with Terminal Block (Sourcing Outputs) | |
|----------------------------------|--|--|
| Model | CJ1W-OD204 | |
| Rated Voltage | 24 VDC | |
| Operating Load Voltage Range | 20.4 to 26.4 VDC | |
| Maximum Load Current | 0.5 A/point, 4.0 A/Unit | |
| Leakage Current | 0.1 mA max. | |
| Residual Voltage | 1.5 V max. | |
| ON Response Time | 0.5 ms max. | |
| OFF Response Time | 1.0 ms max. | |
| Load Short-circuit Protection | Detection current: 0.7 to 2.5 A Automatic restart after error clearance. | |
| Insulation Resistance | $20~M\Omega$ between the external terminals and the GR terminal (100 VDC) | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | |
| Number of Circuits | 8 (8 points/common, 1 circuit) | |
| Internal Current Consumption | 5 VDC, 100 mA max. | |
| Fuse | None | |
| External Power Supply | 20.4 to 26.4 VDC, 40 mA min. | |
| Weight | 120 g max. | |
| | Signal name | |

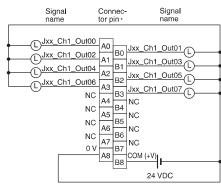
Circuit Configuration



- When overcurrent is detected, the ERR indicator will light, and the corresponding bit in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE.
- The signal names of the terminals are the device variable names.

 The device variable names are the names that use "Jxx" as the device name.

External connection and terminal-device variable diagram



- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- The signal names of the terminals are the device variable names.
 The device variable names are the names that use "Jxx" as the device name.

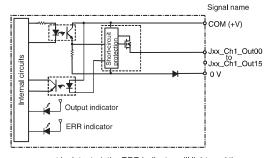
Note: Although 16 I/O bits (1 word) are allocated, only 8 of these can be used for external I/O.

^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

CJ1W-OD212 Transistor Output Unit (16 Points)

| Name | 16-point Transistor Output Unit with Terminal Block (Sourcing Outputs) | |
|----------------------------------|--|--|
| Model | CJ1W-OD212 | |
| Rated Voltage | 24 VDC | |
| Operating Load Voltage Range | 20.4 to 26.4 VDC | |
| Maximum Load Current | 0.5 A/point, 5.0 A/Unit | |
| Maximum Inrush Current | 0.1 mA max. | |
| Leakage Current | 1.5 V max. | |
| ON Response Time | 0.5 ms max. | |
| OFF Response Time | 1.0 ms max. | |
| Load Short-circuit Protection | Detection current: 0.7 to 2.5 A Automatic restart after error clearance. | |
| Insulation Resistance | 20 MΩ between the external terminals and the GR terminal (100 VDC) | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | |
| Number of Circuits | 16 (16 points/common, 1 circuit) | |
| Internal Current Consumption | 5 VDC, 100 mA max. | |
| External Power Supply | 20.4 to 26.4 VDC, 40 mA min. | |
| Weight | 120 g max. | |
| | | |

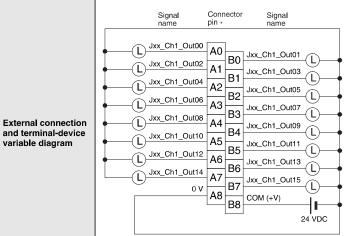
Circuit Configuration



- When overcurrent is detected, the ERR indicator will light, and the corresponding bit in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE.
- The signal names of the terminals are the device variable names.

 The device variable names.

The device variable names are the names that use "Jxx" as the device name.



- When wiring, pay careful attention to the polarity of the external power supply. The load may operate incorrectly if the polarity is reversed.
- 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.

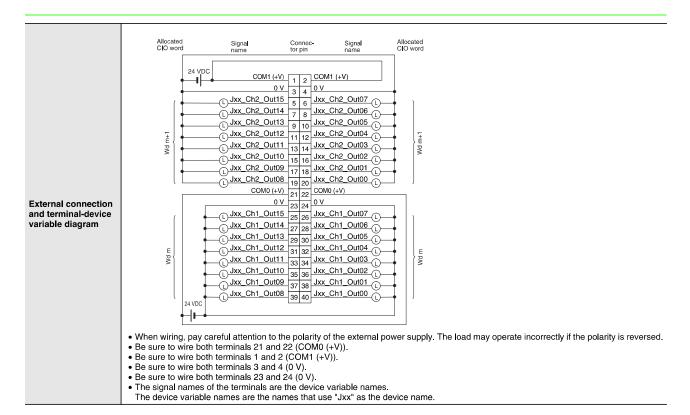
^{*} Terminal numbers A0 to A8 and B0 to B8 are used in the external connection and terminal-device variable diagrams. They are not printed on the Units.

CJ1W-OD232 Transistor Output Unit (32 Points)

| Name | 32-point Transistor Output Unit with MIL Connector (Sourcing Outputs) | |
|----------------------------------|--|--|
| Model | CJ1W-OD232 | |
| Rated Voltage | 24 VDC | |
| Operating Load Voltage Range | 20.4 to 26.4 VDC | |
| Maximum Load Current | 0.5 A/point, 2.0 A/common, 4.0 A/Unit | |
| Leakage Current | 0.1 mA max. | |
| Residual Voltage | 1.5 V max. | |
| ON Response Time | 0.5 ms max. | |
| OFF Response Time | 1.0 ms max. | |
| Load Short-circuit Protection | Detection current: 0.7 to 2.5 A Automatic restart after error clearance. | |
| Insulation Resistance | 20 MΩ between the external terminals and the GR terminal (100 VDC) | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | |
| Number of Circuits | 32 (16 points/common, 2 circuits) | |
| Internal Current Consumption | 5 VDC 150 mA max. | |
| External Power Supply | 20.4 to 26.4 VDC, 70 mA min. | |
| Weight | 80 g max. | |
| Accessories | None | |
| | | |

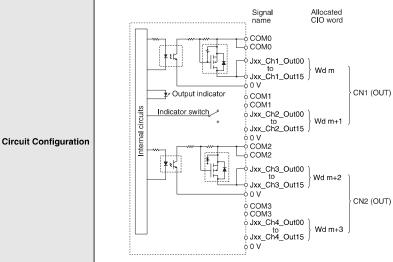
Circuit Configuration Signal name Allocated CIO word CIO

- When overcurrent is detected, the ERR indicator will light, and the corresponding bit (bit allocated for each common) in the Basic I/O Unit Information Area (A050 to A069) will change to TRUE.
 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.

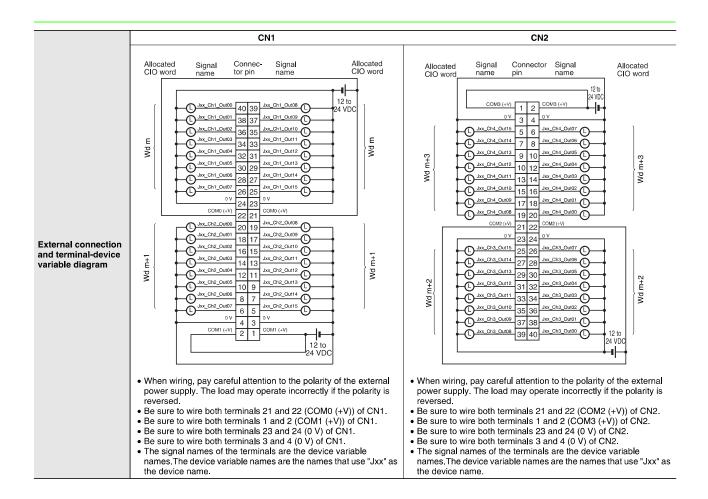


CJ1W-OD262 Transistor Output Unit (64 Points)

| Name | 64-point Transistor Output Unit with MIL Connectors (Sourcing Outputs) | |
|---------------------------------|--|--|
| Model | CJ1W-OD262 | |
| Rated Voltage | 12 to 24 VDC | |
| Operating Load Voltage Range | 10.2 to 26.4 VDC | |
| Maximum Load Current | 0.3 A/point, 1.6 A/common, 6.4 A/Unit | |
| Maximum Inrush Current | 3.0 A/point, 10 ms max. | |
| Leakage Current | 0.1 mA max. | |
| Residual Voltage | 1.5 V max. | |
| ON Response Time | 0.5 ms max. | |
| OFF Response Time | 1.0 ms max. | |
| Insulation Resistance | 20 M Ω between the external terminals and the GR terminal (100 VDC) | |
| Dielectric Strength | 1,000 VAC between the external terminals and the GR terminal for 1 minute at a leakage current of 10 mA max. | |
| Number of Circuits | 64 (16 points/common, 4 circuits) | |
| Internal Current Consumption | 170 mA max. (5 VDC) | |
| Fuse | None | |
| External Power Supply | 10.2 to 26.4 VDC, 50 mA min. | |
| Weight | 110 g max. | |
| Accessories | None | |
| | | |



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.



Bit Allocations for Output Unit

8-point Output Unit

| Allocated | Signal name (C I/N I) | | |
|-----------|-----------------------|---------------------|--|
| CIO | Bit | Signal name (CJ/NJ) | |
| | 00 | OUT0/Jxx_Ch1_Out00 | |
| | 01 | OUT1/Jxx_Ch1_Out01 | |
| | : | : | |
| | 06 | OUT6/Jxx_Ch1_Out06 | |
| Wd m | 07 | OUT7/Jxx_Ch1_Out07 | |
| (Output) | 08 | - | |
| | 09 | _ | |
| | : | : | |
| | 14 | _ | |
| | 15 | - | |

32-point Output Unit

| Allocated CIO word | | Signal name (C I/N I) | |
|--------------------|-----|-----------------------|--|
| CIO | Bit | Signal name (CJ/NJ) | |
| | 00 | OUT0/Jxx_Ch1_Out00 | |
| | 01 | OUT1/Jxx_Ch1_Out01 | |
| Wd m (Output) | : | : | |
| (Calpai) | 14 | OUT14/Jxx_Ch1_Out14 | |
| | 15 | OUT15/Jxx_Ch1_Out15 | |
| | 00 | OUT0/Jxx_Ch2_Out00 | |
| | 01 | OUT1/Jxx_Ch2_Out01 | |
| Wd m+1 (Output) | : | : | |
| (Salpai) | 14 | OUT14/Jxx_Ch2_Out14 | |
| | 15 | OUT15/Jxx_Ch2_Out15 | |

16-point Output Unit

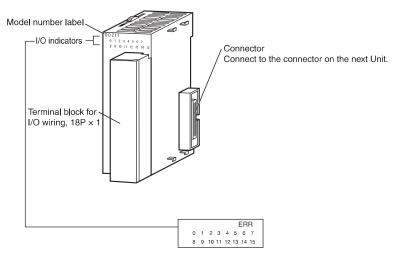
| Allocated CIO word | | Signal name (C I/N I) |
|--------------------|-----|-----------------------|
| CIO | Bit | Signal name (CJ/NJ) |
| | 00 | OUT0/Jxx_Ch1_Out00 |
| | 01 | OUT1/Jxx_Ch1_Out01 |
| Wd m (Output) | : | : |
| (Output) | 14 | OUT14/Jxx_Ch1_Out14 |
| | 15 | OUT15/Jxx_Ch1_Out15 |

64-point Output Unit

| Allocated CIO ward | | | |
|--------------------|-----|-----------------------|--|
| Allocated CIO word | | Signal name (CJ/NJ) | |
| CIO | Bit | orginal manie (co/me) | |
| | 00 | OUT0/Jxx_Ch1_Out00 | |
| | 01 | OUT1/Jxx_Ch1_Out01 | |
| Wd m (Output) | : | : | |
| (Odipai) | 14 | OUT14/Jxx_Ch1_Out14 | |
| | 15 | OUT15/Jxx_Ch1_Out15 | |
| | 00 | OUT0/Jxx_Ch2_Out00 | |
| | 01 | OUT1/Jxx_Ch2_Out01 | |
| Wd m+1 (Output) | : | : | |
| (Output) | 14 | OUT14/Jxx_Ch2_Out14 | |
| | 15 | OUT15/Jxx_Ch2_Out15 | |
| | 00 | OUT0/Jxx_Ch3_Out00 | |
| | 01 | OUT1/Jxx_Ch3_Out01 | |
| Wd m+2 (Output) | : | : | |
| (Output) | 14 | OUT14/Jxx_Ch3_Out14 | |
| | 15 | OUT15/Jxx_Ch3_Out15 | |
| | 00 | OUT0/Jxx_Ch4_Out00 | |
| | 01 | OUT1/Jxx_Ch4_Out01 | |
| Wd m+3 (Output) | : | : | |
| (Output) | 14 | OUT14/Jxx_Ch4_Out14 | |
| | 15 | OUT15/Jxx_Ch4_Out15 | |

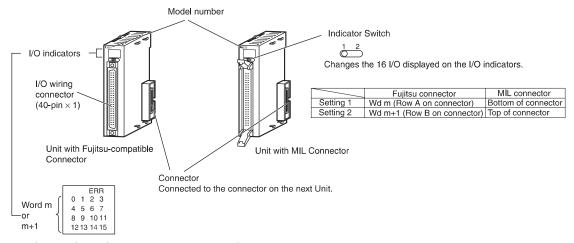
External Interface

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



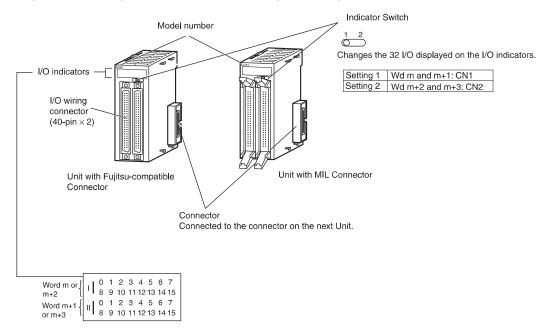
Note: The CJ1W-OD202, CJ1W-OD204, and CJ1W-OD212 also have an ERR indicator for the load short-circuit alarm.

32-point Units (Models with 40-point Fujitsu Connector or MIL Connector)



 $\textbf{Note:} \ \ \textbf{Only the CJ1W-OD232} \ \ \textbf{has an ERR indicator for the load short-circuit alarm.}$

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



Wiring Basic I/O Units with Terminal Blocks

Electric Wires

The following wire gauges are recommended.

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

Crimp terminals

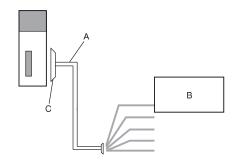
Use crimp terminals (M3) having the dimensions shown below.



I/O Unit Wiring Methods

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

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

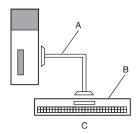


| Α | User-provided cable |
|---|---------------------|
| В | External device |
| С | Connector |

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.

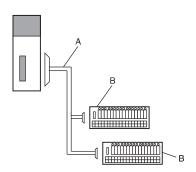


| A | Connecting Cable for Connector-Terminal Block Conversion Unit XW2Z |
|---|--|
| В | Connector-Terminal Block Conversion Unit XW2R |
| С | Conversion to a screw terminal block |

3. I/O Relay Terminal

Use a Connecting Cable to connect to an I/O Relay Terminal.

The I/O specifications can be converted to relay outputs and AC inputs by connecting the I/O Relay Terminal to an I/O Unit.



| A | Connecting Cable for I/O Relay Terminals XW2Z-R |
|---|---|
| В | I/O Relay Terminals G70V, G7TC Relay Terminals G70D, G70R I/O Terminal Socket G70A 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-compatible Connectors Applicable Units

| Model | Specifications | Pins |
|------------|---|------|
| CJ1W-OD231 | Transistor Output Unit with Sinking Outputs, 32 outputs | 40 |
| CJ1W-OD261 | Transistor Output Unit with Sinking Outputs, 64 outputs | 40 |

Applicable Cable-side Connectors

| Connection | Pins | OMRON set | Fujitsu parts |
|-----------------|------|------------|---|
| Solder-type | 40 | C500-CE404 | Socket: FCN-361J040-AU Connector cover: FCN-360C040-J2 |
| Crimped | 40 | C500-CE405 | Socket: FCN-363J040 Connector cover: FCN-360C040-J2 Contacts: FCN-363J-AU |
| Pressure-welded | 40 | C500-CE403 | FCN-367J040-AU/F |

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

| Model | Specifications | Pins |
|--------------------------|--|------|
| CJ1W-OD232 | Transistor Output Unit with sourcing outputs, 32 outputs | |
| CJ1W-OD262 | Transistor Output Unit with sourcing outputs, 64 outputs | |
| CJ1W-OD233 CJ1W-OD234 | Transistor Output Unit with sinking outputs, 32 outputs | 40 |
| CJ1W-OD263 | Transistor Output Unit with sinking outputs, 64 outputs | |

Applicable Cable-side Connectors

| Connection | Pins | OMRON set | DDK parts |
|-----------------|------|--|----------------|
| Pressure-welded | 40 | XG4M-4030-T *1 | FRC5-A040-3T0S |
| | 40 | XG5N-401 *2 | HU-40OS2-001 |
| Crimped | _ | Crimp Contacts for XG5N *3 XG5W-0232 (loose contacts: 100 pieces) XG5W-0232-R (reel contacts: 10,000 pieces) | HU-111S |

^{*1.} Socket and Stain Relief set.

Wire Size

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

Crimping Tools

The following models are recommended for crimping tools and pressure-welding tools for Fujitsu connectors. Tools for Crimped Connectors (Fujitsu Component)

| Product Name | Model |
|-------------------------|-----------------|
| Hand Crimping Tool | FCN-363T-T005/H |
| Contact Withdrawal Tool | FCN-360T-T001/H |

Tools for Pressure-welded Connectors (Fujitsu Component)

| ` , , | |
|---------------|-----------------|
| Product Name | Model |
| Hand Press | FCN-707T-T101/H |
| Cable Cutter | FCN-707T-T001/H |
| Locator Plate | FCN-367T-T012/H |

The following models are recommended for tools for OMRON MIL connectors. Tools for Pressure-welded Connectors (OMRON)

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

Tools for Crimped Connectors (OMRON)

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

^{*2.} 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.

2. Connecting Connector-Terminal Block Conversion Units

Connection Patterns for Connector-Terminal Block Conversion Units

| Pattern | Configuration | | | | | | |
|---------|--|--|--|--|--|--|--|
| Α | Connecting Cable Connector-Terminal Block Conversion Unit 34 terminals | | | | | | |
| В | Connecting Cable Connector-Terminal Block Conversion Unit 34 terminals 34 terminals | | | | | | |

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

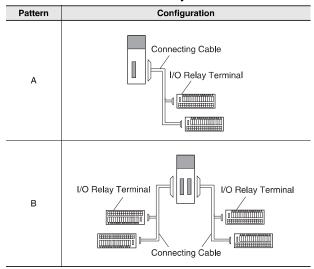
| Unit | I/O capacity | Number of connectors | Polarity | Connection pattern | Connecting Cable * | Connector-Terminal Block Conversion Unit | Wiring method | Common terminals | |
|-----------------------|------------------------|------------------------------|----------|--------------------|-----------------------|---|-------------------------|------------------|--|
| CJ1W-OD231 32 outputs | | | | | | XW2R-J34G-C3 | Phillips screw | | |
| | 1 Fujitsu connector | NPN | Α | XW2Z-□□□B | XW2R-E34G-C3 | Slotted screw (rise up) | No | | |
| | | 30111100101 | l | | | XW2R-P34G-C3 | Push-in spring | | |
| | | | | A | XW2Z-□□□K | XW2R-J34G-C4 | Phillips screw | No | |
| CJ1W-OD232 | 32 outputs | 1 MIL connector | PNP | | | XW2R-E34G-C4 | Slotted screw (rise up) | | |
| | | 00111100101 | | | | XW2R-P34G-C4 | Push-in spring | | |
| | | | NPN | А | XW2Z-□□□K | XW2R-J34G-C4 | Phillips screw | No | |
| CJ1W-OD233 | CJ1W-OD233 32 outputs | 1 MIL connector | | | | XW2R-E34G-C4 | Slotted screw (rise up) | | |
| | | | | | | XW2R-P34G-C4 | Push-in spring | | |
| | | ts 1 MIL connector | | А | XW2Z-□□□K | XW2R-J34G-C4 | Phillips screw | No | |
| CJ1W-OD234 32 outputs | 32 outputs | | NPN | | | XW2R-E34G-C4 | Slotted screw (rise up) | | |
| | | | | | | XW2R-P34G-C4 | Push-in spring | | |
| | | outputs 2 Fujitsu connectors | | В | XW2Z-□□□B (2 pcs) | XW2R-J34G-C3 (2 Units) | Phillips screw | No | |
| CJ1W-OD261 | 64 outputs | | NPN | | | XW2R-E34G-C3 (2 Units) | Slotted screw (rise up) | | |
| | | | | | | XW2R-P34G-C3 (2 Units) | Push-in spring | | |
| | | tputs 2 MIL connectors | s PNP | В | XW2Z-□□□K (2 pcs) | XW2R-J34G-C4 (2 Units) | Phillips screw | No | |
| CJ1W-OD262 64 outputs | 64 outputs | | | | | XW2R-E34G-C4 (2 Units) | Slotted screw (rise up) | | |
| | | 001111001010 | | | | XW2R-P34G-C4 (2 Units) | Push-in spring | | |
| CJ1W-OD263 64 | | 2 MIL connectors | NPN | В | XW2Z-□□□K (2 pcs) | XW2R-J34G-C4 (2 Units) | Phillips screw | | |
| | 64 outputs | | | | | XW2R-E34G-C4 (2 Units) | Slotted screw (rise up) | No | |
| | | | | | | XW2R-P34G-C4 (2 Units) | Push-in spring | | |

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

Note: For details, refer to the XW2R series catalog (Cat. No. G077).

3. Connecting I/O Relay Terminals

Connection Patterns for I/O Relay Terminals



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

| I/O Units | | | Connection Connecting Cables | | | I/O Relay Terminals | | | | |
|----------------------|-----------------|-----------------------------------|------------------------------|---------|-----------------|---------------------|--------------------|---------------|-------------------|------------------|
| Model | I/O capacity | External connectors | Polarity | pattern | Model *1 | Quantity required | Model | I/O points | Quantity required | Wiring method |
| | | | Sinking (NPN) | А | XW2Z-RO□C-□ | 1 | G70V-SOC16P(-C4) | 16 | 2 | Push-in spring |
| | | | | | | | G7TC-OC16 | 16 | | |
| CJ1W-OD231 | 32 outputs | 1 Fujitsu connector | | | | | G70D-SOC/FOM16 | 16 | | Screw terminal |
| C31W-OD231 | 32 outputs | (40 p) | | | | | G70D-VSOC16/VFOM16 | 16 | | |
| | | | | | | | G70A-ZOC16-3 *3 | 16 | | |
| | | | | | | | G70R-SOC08 *2 | 8 | | |
| | | 1 MIL | Carrataa | | XW2Z-RO□-□-D1 | 1 | G70A-ZOC16-4 *3 | 16 | | |
| CJ1W-OD232 | 32 outputs | connector | Sourcing (PNP) | А | XW2Z-NULI-LI-DT | ' | G70D-SOC/FOM16-1 | 16 | 2 | Screw terminal |
| | | (40 p) | (FINE) | | XW2Z-RI□-□-D1 | 1 | G7TC-OC16-1 | 16 | 1 | |
| | | | | А | | | G70V-SOC16P(-C4) | 16 | | Push-in spring |
| | | | Sinking | | XW2Z-RO□-□-D1 | | G7TC-OC16 | 16 | 2 | Screw terminal |
| CJ1W-OD233 | 32 outputs | 1 MIL connector | | | | 1 | G70D-SOC/FOM16 | 16 | | |
| C31W-OD233 | 32 outputs | (40 p) | (NPN) | | | | G70D-VSOC16/VFOM16 | 16 | | |
| | | (40 p) | | | | | G70A-ZOC16-3 *3 | 16 | | |
| | | | | | | | G70R-SOC08 *2 | 8 | 1 | |
| | | | Sinking (NPN) | A | XW2Z-RO□C-□ | 1 | G70V-SOC16P(-C4) | 16 | - 2 | Push-in spring |
| | | | | | | | G7TC-OC16 | 16 | | Screw terminal |
| CJ1W-OD234 | 32 outputs | 1 MIL connector | | | | | G70D-SOC/FOM16 | 16 | | |
| C31W-OD234 | 32 outputs | (40 p) | | | | | G70D-VSOC16/VFOM16 | 16 | | |
| | | | | | | | G70A-ZOC16-3 *3 | 16 | | |
| | | | | | | | G70R-SOC08 *2 | 8 | | |
| | | 2 Fujitsu connectors (40 p) | | В | XW2Z-RO□C-□ | 2 | G70V-SOC16P(-C4) | 16 | | Push-in spring |
| | 64 outputs | | Sinking (NPN) | | | | G7TC-OC16 | 16 | 4 | Screw terminal |
| CJ1W-OD261 | | | | | | | G70D-SOC/FOM16 | 16 | | |
| C31W-OD201 | 04 outputs | | | | | | G70D-VSOC16/VFOM16 | 16 | | |
| | | | | | | | G70A-ZOC16-3 *3 | 16 | | |
| | | | | | | | G70R-SOC08 *2 | 8 | | |
| | | | Sourcing (PNP) | В | XW2Z-RO□-□-D1 | 2 | G70V-SOC16P-1(-C4) | 16 | 4 | Push-in spring |
| CJ1W-OD262 | 64 outputs | 2 MIL connectors | | | | | G70A-ZOC16-4 *3 | 16 | | Screw terminal |
| CJ1W-OD262 64 output | 04 outputs | (40 p) | | | | | G70D-SOC/FOM16-1 | 16 | | |
| | | | | | XW2Z-RI□-□-D1 | 2 | G7TC-OC16-1 | 16 | 1 | |
| CJ1W-OD263 6 | 64 outputs | 2 MIL connectors (40 p) | Sinking (NPN) | В | XW2Z-RO□-□-D1 | | G70V-SOC16P(-C4) | 16 | 4 | Push-in spring |
| | | | | | | 2 | G7TC-OC16 | 16 | | |
| | | | | | | | G70D-SOC/FOM16 | 16 | | Screw terminal |
| | | | | | | | G70D-VSOC16/VFOM16 | 16 | | |
| | | | | | | | G70A-ZOC16-3 *3 | 16 | | |
| | | | | | | | G70R-SOC08 *2 | 8 | | |

^{*1.} The box
is replaced by the cable length.

^{*2.} In addition to the G70R-SOC08, 8-point output G7TC-OC08 and G70D-SOC08 models are available.

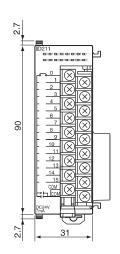
^{*3.} The G70A-ZOC16-3/4 has I/O terminal sockets. Mounted relays are sold separately. In addition, an G70A-ZOC16-3/4 will be SPDT × 16 points with G2R relays.

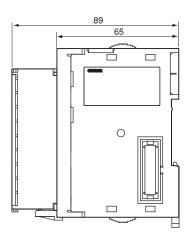
Dimensions (Unit: mm)

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

CJ1W-OC201/ OC211/ OA201/ OD201 / OD202/ OD203/ OD204/ OD211/ OD213 / OD212



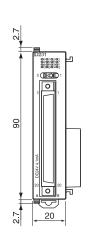


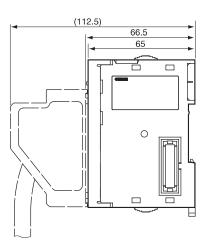


32-point Unit (Output Units)

With Fujitsu-Compatible Connector (40-pin \times 1) CJ1W-OD231

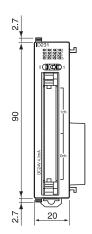


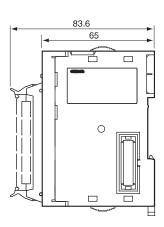




With MIL Connector (40-pin \times 1) CJ1W-OD232 / OD233 / OD234



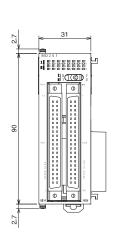


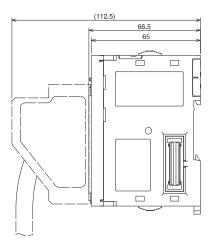


64-point Units (Output Units)

With Fujitsu-Compatible Connector (40-pin \times 2) CJ1W-OD261

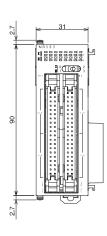


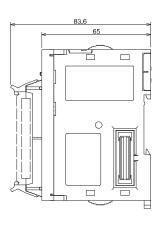




With MIL Connector (40-pin \times 2) CJ1W-OD262 / OD263







Related Manuals

| Name | Cat. No. | Contents | | |
|--|----------|---|--|--|
| CJ-series CJ2 CPU Unit Hardware User's Manual CJ2H-CPU6□-EIP CJ2H-CPU6□ CJ2M-CPU□□ | W472 | Describes the following for CJ2 CPU Units: Overview and features Basic system configuration Part nomenclature and functions Mounting and setting procedure Remedies for errors Also refer to the Software User's Manual (W473). | | |
| CJ Series CJ1H-CPU H-R, CJ1G/H-CPU H, CJ1G-CPU P, CJ1G-CPU CJ1M-CPU CPU CPUCP | W393 | Provides an outlines of and describes the design, installation, maintenance, and other basic operations for the CJ-series PLCs. | | |
| NJ-series CPU Unit Hardware User's Manual NJ501-□□□□ | W500 | An introduction to the entire NJ-series system is provided along with the following information on a Controller built with an NJ501 CPU Unit. • Features and system configuration • Introduction • Part names and functions • General specifications • Installation and wiring • Maintenance and inspection Use this manual together with the NJ-series CPU Unit Software User's Manual (Cat. No. W501). | | |

Terms and Conditions Agreement

Read and understand this catalog.

Please read and understand this catalog before purchasing the products. Please consult your OMRON representative if you have any questions or comments.

Warranties.

- (a) Exclusive Warranty. Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied.
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