

# Cables for I/O Relay Terminals

## XW2Z-R

### Connect I/O Relay Terminals to I/O Units for Programmable Controllers with one touch.

- Cables with Connectors for G70V and G7TC I/O Relay Terminals, G70D and G70R Relay Terminals, and G70A and P7TF-IS/OS I/O Terminal Sockets.
- Cables with loose wires available with or without crimp terminals.
- Cables available for programmable controllers from Mitsubishi Electric.



### Cable Types and Table of Contents

| Connects to   | Appearance   | Description  | Name  | I/O Classification                           | Typical model                        | Wiring diagram |        |
|---|--|--|---|--|--------------------------------------|----------------|--------|
|   |  |  |   |  |                                      | Page           | Number |
| Connections with terminal blocks of various devices   |  | This Cable is convenient for connecting I/O Relay Terminals to devices equipped with screw terminals.          | Cables with Loose Wires and Crimp Terminals             | 16 I/O points                                | <b>XW2Z-RY□C</b>                     | 4              | (1)    |
|   |  | This Cable has loose wires at the device end.  | Cables with Loose Wires                                 | 16 I/O points                                | <b>XW2Z-RA□C</b>                     |                | (2)    |
| Fujitsu connectors  |  | Connects a PLC I/O Unit, DeviceNet slave or other device with Fujitsu connectors 1:1 to an I/O Relay Terminal. | Cables with Connectors (1:1)                            | 16 I/O points                                | <b>XW2Z-R□C</b>                      | 5              | (3)    |
|   |  | Connects a PLC I/O Unit, DeviceNet slave, or other device with Fujitsu connectors 1:2 to I/O Relay Terminals.  | Cables with Connectors (1:2)                            | 32 input points                              | <b>XW2Z-RI□C-□</b>                   |                | (4)    |
|   |  |  |   | 32 output points                             | <b>XW2Z-RO□C-□</b>                   | (5)            |        |
|   |  | Connects a PLC I/O Unit, DeviceNet slave, or other device with Fujitsu connectors 1:3 to I/O Relay Terminals.  | Cables with Connectors (1:3)                            | 48 I/O points                                | <b>XW2Z-R□C-□-□</b>                  | 6              | (6)    |
| MIL connectors  |  | Connects a PLC I/O Unit, DeviceNet slave, or other device with MIL connectors 1:1 to an I/O Relay Terminal.    | Cables with Connectors (1:1)                            | 16 input points/<br>16 output points         | <b>XW2Z-RO□C</b><br><b>XW2Z-RI□C</b> | 7              | (7)    |
|   |  |  |   |  |                                      |                | (8)    |
|   |  | Connects a PLC I/O Unit, DeviceNet slave, or other device with MIL connectors 1:2 to I/O Relay Terminals.      | Cables with Connectors (1:2)                            | 32 input points/<br>32 output points         | <b>XW2Z-RO□-□-D1</b>                 | 8              | (9)    |
|   |  |  |   |  | <b>XW2Z-RI□-□-D1</b>                 |                | (10)   |
|   |  |  |   |  | <b>XW2Z-RI□-□-D2</b>                 |                | (11)   |
|   | Connects a DeviceNet slave or other device with MIL connectors 1:2 to I/O Relay Terminals. |  | 16 input points/<br>16 output points<br>(32 I/O points) | <b>XW2Z-RM□-□-D1</b><br><b>XW2Z-RM□-□-D2</b> | 9                                    | (12)<br>(13)   |        |
| Mitsubishi Electric PLCs<br>Applicable models:<br>For inputs:<br>AX42, A1SX41, A1SX42,<br>QX41, and QX42<br>For outputs:<br>AY42, A1SY41, A1SY42,<br>QY41P, and QY42P |  | Connects Mitsubishi Electric PLCs with 32-point connectors to I/O Relay Terminals through a special cable.     | Mitsubishi Electric PLC Connecting Cables (1:2)         | 32 input points                              | <b>XW2Z-RI□C-MN</b>                  | 10             | (14)   |
|   |  |  | 32 output points  | <b>XW2Z-RO□C-MN</b>                          | (15)                                 |                |        |

**Note:** For combinations of Connections, refer to I/O Relay Terminals and Connected Devices (Cat. No. J217) or to the datasheets for related products.

# XW2Z-R

## Ordering Information

| Type (A side)                   | Name  | I/O Classification              | Appearance | Cable length L (mm)                          |               |                  | Models              |
|---------------------------------|---|---------------------------------|------------|--|---------------|------------------|---------------------|
| Loose wire connectins           | Cables with Loose Wires and Crimp Terminals<br>XW2Z-RY□C  | 16 I/O points                   |            | 1,000  |               |                  | XW2Z-RY100C         |
|                                 |   |                                 |            | 1,500  |               |                  | XW2Z-RY150C         |
|                                 |   |                                 |            | 2,000  |               |                  | XW2Z-RY200C         |
|                                 |   |                                 |            | 3,000  |               |                  | XW2Z-RY300C         |
|                                 |   |                                 |            | 5,000  |               |                  | XW2Z-RY500C         |
|                                 | Cables with Loose Wires<br>XW2Z-RA□C                      | 16 I/O points                   |            | 2,000  |               |                  | XW2Z-RA200C         |
|                                 |   |                                 |            | 5,000  |               |                  | XW2Z-RA500C         |
| Fujitsu connectors (24 pins)    | Cables with Connectors (1:1)<br>XW2Z-R□C                  | 16 I/O points                   |            | 1,000  |               |                  | XW2Z-R100C          |
|                                 |   |                                 |            | 1,500  |               |                  | XW2Z-R150C          |
|                                 |   |                                 |            | 2,000  |               |                  | XW2Z-R200C          |
|                                 |   |                                 |            | 3,000  |               |                  | XW2Z-R300C          |
| Fujitsu connectors (40 pins)    | Cables with Connectors (1:2)<br>XW2Z-R□C-□<br>XW2Z-RO□C-□ | 32 input points                 |            | (A) 1,000                                    | (B) 750       | XW2Z-R□100C-75   |                     |
|                                 |   |                                 |            | (A) 1,500                                    | (B) 1,250     | XW2Z-R□150C-125  |                     |
|                                 |   |                                 |            | (A) 2,000                                    | (B) 1,750     | XW2Z-R□200C-175  |                     |
|                                 |   |                                 |            | (A) 3,000                                    | (B) 2,750     | XW2Z-R□300C-275  |                     |
|                                 |   |                                 |            | (A) 5,000                                    | (B) 4,750     | XW2Z-R□500C-475  |                     |
|                                 |   |                                 |            | 32 output points                             | (A) 1,000     | (B) 750          | XW2Z-RO□100C-75     |
|                                 |   | (A) 1,500                       |            |  | (B) 1,250     | XW2Z-RO□150C-125 |                     |
|                                 |   | (A) 2,000                       |            |  | (B) 1,750     | XW2Z-RO□200C-175 |                     |
|                                 |   | (A) 3,000                       |            |  | (B) 2,750     | XW2Z-RO□300C-275 |                     |
|                                 |   | (A) 5,000                       |            |  | (B) 4,750     | XW2Z-RO□500C-475 |                     |
|                                 |   | Straight length (without bends) |            |  |               |                  |                     |
|                                 |   | Fujitsu connectors (56 pins)    |            | Cables with Connectors (1:3)<br>XW2Z-R□C-□-□ | 48 I/O points |                  | (A) 1,500           |
| (A) 2,000                       | (B) 1,750   |                                 | (C) 1,500  |  |               |                  | XW2Z-R□200C-175-150 |
| (A) 3,000                       | (B) 2,750   |                                 | (C) 2,500  |  |               |                  | XW2Z-R□300C-275-250 |
| Straight length (without bends) |   |                                 |            |  |               |                  |                     |
|                                 |   |                                 |            |  |               |                  |                     |
|                                 |   |                                 |            |  |               |                  |                     |
| MIL connectors (20 pins)        | Cables with Connectors (1:1)<br>XW2Z-RO□C<br>XW2Z-R□C     | 16 I/O points                   |            | 250  |               |                  | XW2Z-RO25C          |
|                                 |   |                                 |            | 500  |               |                  | XW2Z-RO50C          |
|                                 |   |                                 |            | 250  |               |                  | XW2Z-R□25C          |
|                                 |   |                                 |            | 500  |               |                  | XW2Z-R□50C          |

| Type (A side)  | Name  | I/O Classification | Appearance | Cable length L (mm) |                   | Models             |
|--|---|--------------------|------------|---------------------|-------------------|--------------------|
| MIL connectors (40 pins)   | Cables with Connectors (1:2)<br><br>XW2Z-RO□-□-D1,<br>XW2Z-RI□-□-D1,<br>XW2Z-RI□-□-D2,<br>XW2Z-RM□-□-D1*,<br>XW2Z-RM□-□-D2* | 32 I/O points      |            | (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 |                    |
|  |   | (A) 500            |            | (B) 250             | XW2Z-RI50-25-D2   |                    |
|  |   | (A) 750            |            | (B) 500             | XW2Z-RI75-50-D2   |                    |
|  |   | (A) 500            |            | (B) 250             | XW2Z-RM50-25-D1   |                    |
|  |   | (A) 750            |            | (B) 500             | XW2Z-RM75-50-D1   |                    |
|  |   | (A) 1,000          |            | (B) 750             | XW2Z-RM100-75-D1  |                    |
|  |   | (A) 1,500          |            | (B) 1,250           | XW2Z-RM150-125-D1 |                    |
| (A) 2,000  | (B) 1,750   | XW2Z-RM200-175-D1  |            |                     |                   |                    |
| (A) 3,000  | (B) 2,750   | XW2Z-RM300-275-D1  |            |                     |                   |                    |
| (A) 5,000  | (B) 4,750   | XW2Z-RM500-475-D1  |            |                     |                   |                    |
| (A) 500  | (B) 250   | XW2Z-RM50-25-D2    |            |                     |                   |                    |
| (A) 750  | (B) 500   | XW2Z-RM75-50-D2    |            |                     |                   |                    |
| Mitsubishi Electric PLCs with 32-point connectors (1:2)<br><br>Applicable models:<br>For inputs: AX42, A1SX41, A1SX42, QX41, and QX42<br>For outputs: AY42, A1SY41, A1SY42, QY41P, and QY42P | Mitsubishi Electric PLC Connecting Cables<br><br>XW2Z-RI□C-□-MN<br>XW2Z-RO□C-□-MN   | 32 input points    |            | (A) 1,000           | (B) 750           | XW2Z-RI100C-75-MN  |
|  |   | 32 output points   |            | (A) 1,500           | (B) 1,250         | XW2Z-RI150C-125-MN |
|  |   |                    |            | (A) 2,000           | (B) 1,750         | XW2Z-RI200C-175-MN |
|  |   | 32 output points   |            | (A) 3,000           | (B) 2,750         | XW2Z-RI300C-275-MN |
|  |   |                    |            | (A) 1,000           | (B) 750           | XW2Z-RO100C-75-MN  |
|  |   | 32 output points   |            | (A) 1,500           | (B) 1,250         | XW2Z-RO150C-125-MN |
|  |   |                    |            | (A) 2,000           | (B) 1,750         | XW2Z-RO200C-175-MN |
|  |   | 32 output points   |            | (A) 3,000           | (B) 2,750         | XW2Z-RO300C-275-MN |

**Note:** For a connector pin assignment diagram and cable color information, refer to the wiring drawings.

\* These cables are used to connect to slave products for DeviceNet and other networks.

# XW2Z-R

## Wiring diagram

### For various devices

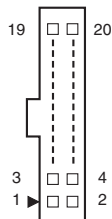
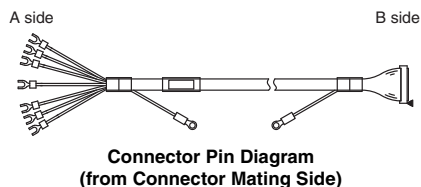
#### (1) Cables with Loose Wires and Crimp Terminals (16 I/O points)

XW2Z-RY□C

| A side             |                  |          |           | B side      |  |
|--------------------|------------------|----------|-----------|-------------|--|
| Marker tube No. *1 | Insulation color | Dot mark | Dot color | CN1 Pin No. | Corresponding G70V/G7TC connector pin number*2 |
| 20                 | BLUE             | ■        | RED       | 1           | 20   |
| 10                 | BLUE             | ■        | BLACK     | 2           | 10   |
| 19                 | PINK             | ■        | RED       | 3           | 19   |
| 9                  | PINK             | ■        | BLACK     | 4           | 9  |
| 18                 | GREEN            | ■        | RED       | 5           | 18   |
| 8                  | GREEN            | ■        | BLACK     | 6           | 8  |
| 17                 | ORANGE           | ■        | RED       | 7           | 17   |
| 7                  | ORANGE           | ■        | BLACK     | 8           | 7  |
| 16                 | GRAY             | ■        | RED       | 9           | 16   |
| 6                  | GRAY             | ■        | BLACK     | 10          | 6  |
| 15                 | BLUE             | ■ ■      | RED       | 11          | 15   |
| 5                  | BLUE             | ■ ■      | BLACK     | 12          | 5  |
| 14                 | PINK             | ■ ■      | RED       | 13          | 14   |
| 4                  | PINK             | ■ ■      | BLACK     | 14          | 4  |
| 13                 | GREEN            | ■ ■      | RED       | 15          | 13   |
| 3                  | GREEN            | ■ ■      | BLACK     | 16          | 3  |
| 12                 | ORANGE           | ■ ■      | RED       | 17          | 12   |
| 2                  | ORANGE           | ■ ■      | BLACK     | 18          | 2  |
| 11                 | GRAY             | ■ ■      | RED       | 19          | 11   |
| 1                  | GRAY             | ■ ■      | BLACK     | 20          | 1  |

\*1. Marker tube numbers and the G70V and G7TC connector pin numbers are same. Be careful when using with other models (Relay Terminals). Refer to the datasheet for specific products for details.

\*2. Refer to the datasheets for the G70V and G7TC for the connector pin layouts of I/O Relay Terminals.



| Item               | Part  |  |
|--------------------|---|--|
| Terminal Connector | A side  | Loose Wires and Crimp Terminals (fork terminal (1.25-3)) |
|                    | B side  | XG4M-2030-T (MIL connector)                              |
| Cable              | UL2464 BC10P-SB AWG28(7/0.127)<br>Interface cable (Cable color: Gray) |  |

- Note:**
- The power line capacity is 50 mA max. per I/O point. Also, always check the driver capacity and I/O relay power consumption when using for outputs.
  - The crimp terminals are labeled with the corresponding connector pin numbers in parentheses. Refer to the Connector Pin No. Tables for marker tube numbers.
  - Connect terminals 9 and 19 and terminals 10 and 20 together when using the G7TC-OC08.
  - The wire gauge of the wires in the cable is 28 AWG (7/0.127).

#### (2) Cables with Loose Wires (16 I/O points)

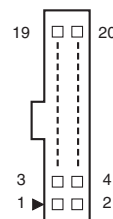
XW2Z-RA□C

| A side           |          |           | B side      |   |
|------------------|----------|-----------|-------------|---|
| Insulation color | Dot mark | Dot color | CN1 Pin No. | Corresponding G70V/G7TC connector pin number* |
| ORANGE           | ■        | BLACK     | 20          | 1   |
| ORANGE           | ■        | RED       | 19          | 11  |
| GRAY             | ■        | BLACK     | 18          | 2   |
| GRAY             | ■        | RED       | 17          | 12  |
| WHITE            | ■        | BLACK     | 16          | 3   |
| WHITE            | ■        | RED       | 15          | 13  |
| YELLOW           | ■        | BLACK     | 14          | 4   |
| YELLOW           | ■        | RED       | 13          | 14  |
| PINK             | ■        | BLACK     | 12          | 5   |
| PINK             | ■        | RED       | 11          | 15  |
| ORANGE           | ■ ■      | BLACK     | 10          | 6   |
| ORANGE           | ■ ■      | RED       | 9           | 16  |
| GRAY             | ■ ■      | BLACK     | 8           | 7   |
| GRAY             | ■ ■      | RED       | 7           | 17  |
| WHITE            | ■ ■      | BLACK     | 6           | 8   |
| WHITE            | ■ ■      | RED       | 5           | 18  |
| YELLOW           | ■ ■      | BLACK     | 4           | 9   |
| YELLOW           | ■ ■      | RED       | 3           | 19  |
| PINK             | ■ ■      | BLACK     | 2           | 10  |
| PINK             | ■ ■      | RED       | 1           | 20  |

\* Refer to the datasheets for the G70V and G7TC for the connector pin layouts of I/O Relay Terminals.



**Connector Pin Diagram  
(from Connector Mating Side)**



| Item               | Part   |   |
|--------------------|--|---|
| Terminal Connector | A side   | Loose Wires                                 |
|                    | B side   | XG5M-2032-N<br>XG5S-2012<br>(MIL connector) |
| Cable              | UL2464 BC10P-SB AWG24(7/0.203)<br>Interface cable (Cable color: Black) |   |

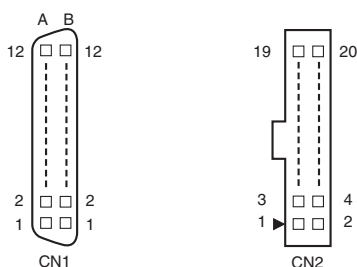
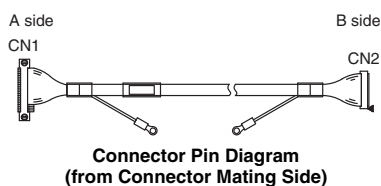
- Note:**
- The wire gauge of the wires in the cable is 24 AWG (7/0.203).
  - Connect terminals 9 and 19 and terminals 10 and 20 together when using the G7TC-OC08.

### For Fujitsu connectors

#### (3) Cables with Connectors (1:1) (16 I/O points)

XW2Z-R□C

| CN1 | CN2 |
|-----|-----|
| 1A  | 20  |
| 1B  | 19  |
| 2A  | 18  |
| 2B  | 17  |
| 3A  | 16  |
| 3B  | 15  |
| 4A  | 14  |
| 4B  | 13  |
| 5A  | 12  |
| 5B  | 11  |
| 6A  | 10  |
| 6B  | 9   |
| 7A  | 8   |
| 7B  | 7   |
| 8A  | 6   |
| 8B  | 5   |
| 9A  | 4   |
| 9B  | 3   |
| 10A | 2   |
| 10B | 1   |
| 11A | NC  |
| 11B |     |
| 12A |     |
| 12B |     |



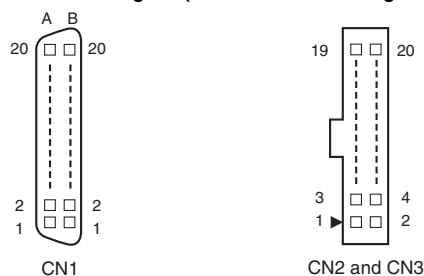
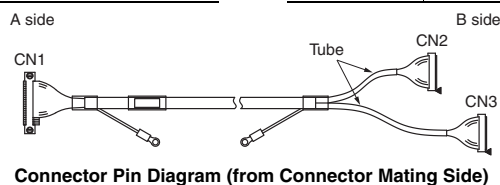
| Item               | Part  |                             |
|--------------------|---|-----------------------------|
| Terminal Connector | A side  | FCN-367J024-AU/F *          |
|                    | B side  | XG4M-2030-T (MIL connector) |
| Cable              | UL2464 BC10P-SB AWG28(7/0.127)<br>Interface cable (Cable color: Gray) |                             |

\* The connector is made by Fujitsu Component Ltd.

#### (4) Cables with Connectors (1:2) (32 I/O points)

XW2Z-RI□C-□

| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1A  | 20  | --- |
| 1B  | --- | 20  |
| 2A  | 18  | --- |
| 2B  | --- | 18  |
| 3A  | 16  | --- |
| 3B  | --- | 16  |
| 4A  | 14  | --- |
| 4B  | --- | 14  |
| 5A  | 12  | --- |
| 5B  | --- | 12  |
| 6A  | 10  | --- |
| 6B  | --- | 10  |
| 7A  | 8   | --- |
| 7B  | --- | 8   |
| 8A  | 6   | --- |
| 8B  | --- | 6   |
| 9A  | 4   | --- |
| 9B  | --- | 4   |
| 10A | 19  | --- |
| 10B | --- | 19  |
| 11A | 17  | --- |
| 11B | --- | 17  |
| 12A | 15  | --- |
| 12B | --- | 15  |
| 13A | 13  | --- |
| 13B | --- | 13  |
| 14A | 11  | --- |
| 14B | --- | 11  |
| 15A | 9   | --- |
| 15B | --- | 9   |
| 16A | 7   | --- |
| 16B | --- | 7   |
| 17A | 5   | --- |
| 17B | --- | 5   |
| 18A | 3   | --- |
| 18B | --- | 3   |
| 19A | NC  |     |
| 19B |     |     |
| 20A |     |     |
| 20B |     |     |



| Item               | Part  |                               |
|--------------------|---|-------------------------------|
| Terminal Connector | A side  | FCN-367J040-AU/FW *           |
|                    | B side  | XG4M-2030-Tx2 (MIL connector) |
| Cable              | UL2464 BC20P-SB AWG28(7/0.127)<br>Interface cable<br>Cable color: Gray<br>Tube color: XW2Z-RI□C-□ CN2, CN3: Red<br>XW2Z-RO□C-□ CN2, CN3: Yellow |                               |

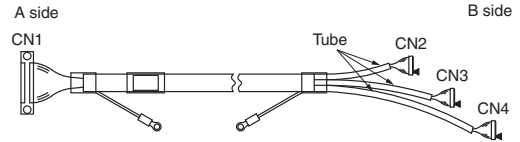
\* The connector is made by Fujitsu Component Ltd.

## For Fujitsu connectors

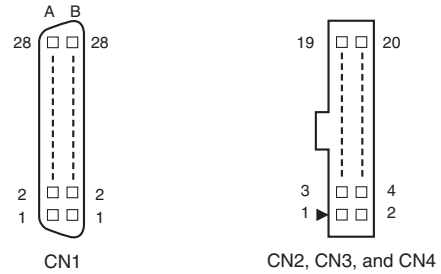
### (6) Cables with Connectors (1:3) (48 I/O points)

XW2Z-R□C-□-□

| CN1 | CN2 | CN3 | CN4 |
|-----|-----|-----|-----|
| 1A  | 20  | --- | --- |
| 1B  | 19  | --- | --- |
| 2A  | 18  | --- | --- |
| 2B  | 17  | --- | --- |
| 3A  | 16  | --- | --- |
| 3B  | 15  | --- | --- |
| 4A  | 14  | --- | --- |
| 4B  | 13  | --- | --- |
| 5A  | 12  | --- | --- |
| 5B  | 11  | --- | --- |
| 6A  | 10  | --- | --- |
| 6B  | 9   | --- | --- |
| 7A  | 8   | --- | --- |
| 7B  | 7   | --- | --- |
| 8A  | 6   | --- | --- |
| 8B  | 5   | --- | --- |
| 9A  | 4   | --- | --- |
| 9B  | 1   | --- | --- |
| 10A | --- | 20  | --- |
| 10B | --- | 19  | --- |
| 11A | --- | 18  | --- |
| 11B | --- | 17  | --- |
| 12A | --- | 16  | --- |
| 12B | --- | 15  | --- |
| 13A | --- | 14  | --- |
| 13B | --- | 13  | --- |
| 14A | --- | 12  | --- |
| 14B | --- | 11  | --- |
| 15A | --- | 10  | --- |
| 15B | --- | 9   | --- |
| 16A | --- | 8   | --- |
| 16B | --- | 7   | --- |
| 17A | --- | 6   | --- |
| 17B | --- | 5   | --- |
| 18A | --- | 4   | --- |
| 18B | --- | 1   | --- |
| 19A | --- | --- | 20  |
| 19B | --- | --- | 19  |
| 20A | --- | --- | 18  |
| 20B | --- | --- | 17  |
| 21A | --- | --- | 16  |
| 21B | --- | --- | 15  |
| 22A | --- | --- | 14  |
| 22B | --- | --- | 13  |
| 23A | --- | --- | 12  |
| 23B | --- | --- | 11  |
| 24A | --- | --- | 10  |
| 24B | --- | --- | 9   |
| 25A | --- | --- | 8   |
| 25B | --- | --- | 7   |
| 26A | --- | --- | 6   |
| 26B | --- | --- | 5   |
| 27A | --- | --- | 4   |
| 27B | --- | --- | 1   |
| 28A |     | NC  |     |
| 28B |     | NC  |     |



Connector Pin Diagram  
(from Connector Mating Side)



| Item               | Part   |                               |
|--------------------|--|-------------------------------|
| Terminal Connector | A side   | FCN-367J056-AU/FW*            |
|                    | B side   | XG4M-2030-T×3 (MIL connector) |
| Cable              | UL2464 BC30P-SB AWG28(7/0.127)<br>Interface cable<br>Cable color: Gray<br>Tube color: CN2, CN3, CN4: Black |                               |

\* The connector is made by Fujitsu Component Ltd.

**For MIL connectors**

(7) Cables with Connectors (1:1) (16 I/O points)

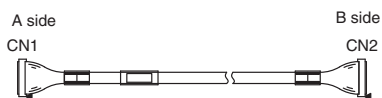
XW2Z-RO□C

| CN1 | CN2 |
|-----|-----|
| 1   | 1   |
| 2   | 2   |
| 3   | 3   |
| 4   | 4   |
| 5   | 5   |
| 6   | 6   |
| 7   | 7   |
| 8   | 8   |
| 9   | 9   |
| 10  | 10  |
| 11  | 11  |
| 12  | 12  |
| 13  | 13  |
| 14  | 14  |
| 15  | 15  |
| 16  | 16  |
| 17  | 17  |
| 18  | 18  |
| 19  | 19  |
| 20  | 20  |

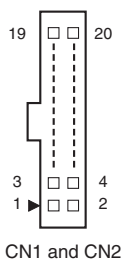
(8) Cables with Connectors (1:1) (16 I/O points)

XW2Z-RI□C

| CN1 | CN2 |
|-----|-----|
| 3   | 1   |
| 4   | 2   |
| 1   | 3   |
| 2   | 4   |
| 5   | 5   |
| 6   | 6   |
| 7   | 7   |
| 8   | 8   |
| 9   | 9   |
| 10  | 10  |
| 11  | 11  |
| 12  | 12  |
| 13  | 13  |
| 14  | 14  |
| 15  | 15  |
| 16  | 16  |
| 17  | 17  |
| 18  | 18  |
| 19  | 19  |
| 20  | 20  |



**Connector Pin Diagram  
(from Connector Mating Side)**



| Item               | Part  |                             |
|--------------------|---|-----------------------------|
| Terminal Connector | A side  | XG4M-2030-T (MIL connector) |
|                    | B side  | XG4M-2030-T (MIL connector) |
| Cable              | UL2464 BC10P-SB AWG28(7/0.127)<br>Interface cable (Cable color: Gray) |                             |

## For MIL connectors

### (9) Cables with Connectors (1:2) (32 I/O points)

#### XW2Z-RO□-□-D1

| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1   | --- | 1   |
| 2   | --- | 2   |
| 3   | --- | 3   |
| 4   | --- | 4   |
| 5   | --- | 5   |
| 6   | --- | 6   |
| 7   | --- | 7   |
| 8   | --- | 8   |
| 9   | --- | 9   |
| 10  | --- | 10  |
| 11  | --- | 11  |
| 12  | --- | 12  |
| 13  | --- | 13  |
| 14  | --- | 14  |
| 15  | --- | 15  |
| 16  | --- | 16  |
| 17  | --- | 17  |
| 18  | --- | 18  |
| 19  | --- | 19  |
| 20  | --- | 20  |
| 21  | 1   | --- |
| 22  | 2   | --- |
| 23  | 3   | --- |
| 24  | 4   | --- |
| 25  | 5   | --- |
| 26  | 6   | --- |
| 27  | 7   | --- |
| 28  | 8   | --- |
| 29  | 9   | --- |
| 30  | 10  | --- |
| 31  | 11  | --- |
| 32  | 12  | --- |
| 33  | 13  | --- |
| 34  | 14  | --- |
| 35  | 15  | --- |
| 36  | 16  | --- |
| 37  | 17  | --- |
| 38  | 18  | --- |
| 39  | 19  | --- |
| 40  | 20  | --- |

### (10) Cables with Connectors (1:2) (32 I/O points)

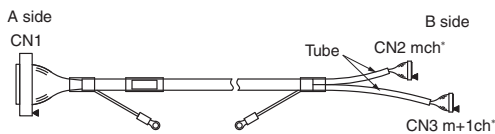
#### XW2Z-RI□-□-D1

| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1   | --- | 3   |
| 2   | --- | 4   |
| 3   | --- | 1   |
| 4   | --- | 2   |
| 5   | --- | 5   |
| 6   | --- | 6   |
| 7   | --- | 7   |
| 8   | --- | 8   |
| 9   | --- | 9   |
| 10  | --- | 10  |
| 11  | --- | 11  |
| 12  | --- | 12  |
| 13  | --- | 13  |
| 14  | --- | 14  |
| 15  | --- | 15  |
| 16  | --- | 16  |
| 17  | --- | 17  |
| 18  | --- | 18  |
| 19  | --- | 19  |
| 20  | --- | 20  |
| 21  | 3   | --- |
| 22  | 4   | --- |
| 23  | 1   | --- |
| 24  | 2   | --- |
| 25  | 5   | --- |
| 26  | 6   | --- |
| 27  | 7   | --- |
| 28  | 8   | --- |
| 29  | 9   | --- |
| 30  | 10  | --- |
| 31  | 11  | --- |
| 32  | 12  | --- |
| 33  | 13  | --- |
| 34  | 14  | --- |
| 35  | 15  | --- |
| 36  | 16  | --- |
| 37  | 17  | --- |
| 38  | 18  | --- |
| 39  | 19  | --- |
| 40  | 20  | --- |

### (11) Cables with Connectors (1:2) (32 I/O points)

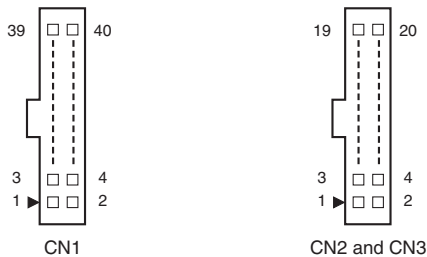
#### XW2Z-RI□-□-D2

| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1   | --- | 1   |
| 2   | --- | 2   |
| 3   | --- | 3   |
| 4   | --- | 4   |
| 5   | --- | 5   |
| 6   | --- | 6   |
| 7   | --- | 7   |
| 8   | --- | 8   |
| 9   | --- | 9   |
| 10  | --- | 10  |
| 11  | --- | 11  |
| 12  | --- | 12  |
| 13  | --- | 13  |
| 14  | --- | 14  |
| 15  | --- | 15  |
| 16  | --- | 16  |
| 17  | --- | 17  |
| 18  | --- | 18  |
| 19  | --- | 19  |
| 20  | --- | 20  |
| 21  | 1   | --- |
| 22  | 2   | --- |
| 23  | 3   | --- |
| 24  | 4   | --- |
| 25  | 5   | --- |
| 26  | 6   | --- |
| 27  | 7   | --- |
| 28  | 8   | --- |
| 29  | 9   | --- |
| 30  | 10  | --- |
| 31  | 11  | --- |
| 32  | 12  | --- |
| 33  | 13  | --- |
| 34  | 14  | --- |
| 35  | 15  | --- |
| 36  | 16  | --- |
| 37  | 17  | --- |
| 38  | 18  | --- |
| 39  | 19  | --- |
| 40  | 20  | --- |



\* For the XW2Z-RI/O□-□-D□

Connector Pin Diagram  
(from Connector Mating Side)



| Item               | Part   |                               |
|--------------------|--|-------------------------------|
| Terminal Connector | A side   | XG4M-4030-T (MIL connector)   |
|                    | B side   | XG4M-2030-Tx2 (MIL connector) |
| Cable              | UL2464 BC20P-SB AWG28(7/0.127)<br>Interface cable<br>Cable color: Gray<br>Tube color: XW2Z-RO□-□-D1 CN2, CN3: Yellow<br>XW2Z-RI□-□-D1/D2 CN2, CN3: Red |                               |



### For MIL connectors

(12) Cables with Connectors (1:2)

(16 input points/16 output points)

XW2Z-RM□-□-D1

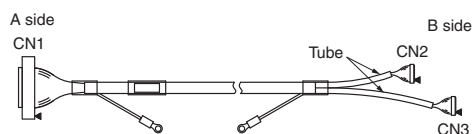
| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1   | --- | 1   |
| 2   | --- | 2   |
| 3   | --- | 3   |
| 4   | --- | 4   |
| 5   | --- | 5   |
| 6   | --- | 6   |
| 7   | --- | 7   |
| 8   | --- | 8   |
| 9   | --- | 9   |
| 10  | --- | 10  |
| 11  | --- | 11  |
| 12  | --- | 12  |
| 13  | --- | 13  |
| 14  | --- | 14  |
| 15  | --- | 15  |
| 16  | --- | 16  |
| 17  | --- | 17  |
| 18  | --- | 18  |
| 19  | --- | 19  |
| 20  | --- | 20  |
| 21  | 3   | --- |
| 22  | 4   | --- |
| 23  | 1   | --- |
| 24  | 2   | --- |
| 25  | 5   | --- |
| 26  | 6   | --- |
| 27  | 7   | --- |
| 28  | 8   | --- |
| 29  | 9   | --- |
| 30  | 10  | --- |
| 31  | 11  | --- |
| 32  | 12  | --- |
| 33  | 13  | --- |
| 34  | 14  | --- |
| 35  | 15  | --- |
| 36  | 16  | --- |
| 37  | 17  | --- |
| 38  | 18  | --- |
| 39  | 19  | --- |
| 40  | 20  | --- |

(13) Cables with Connectors (1:2)

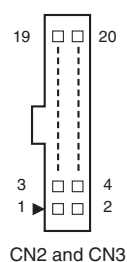
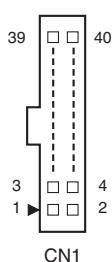
(16 input points/16 output points)

XW2Z-RM□-□-D2

| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1   | --- | 1   |
| 2   | --- | 2   |
| 3   | --- | 3   |
| 4   | --- | 4   |
| 5   | --- | 5   |
| 6   | --- | 6   |
| 7   | --- | 7   |
| 8   | --- | 8   |
| 9   | --- | 9   |
| 10  | --- | 10  |
| 11  | --- | 11  |
| 12  | --- | 12  |
| 13  | --- | 13  |
| 14  | --- | 14  |
| 15  | --- | 15  |
| 16  | --- | 16  |
| 17  | --- | 17  |
| 18  | --- | 18  |
| 19  | --- | 19  |
| 20  | --- | 20  |
| 21  | 1   | --- |
| 22  | 2   | --- |
| 23  | 3   | --- |
| 24  | 4   | --- |
| 25  | 5   | --- |
| 26  | 6   | --- |
| 27  | 7   | --- |
| 28  | 8   | --- |
| 29  | 9   | --- |
| 30  | 10  | --- |
| 31  | 11  | --- |
| 32  | 12  | --- |
| 33  | 13  | --- |
| 34  | 14  | --- |
| 35  | 15  | --- |
| 36  | 16  | --- |
| 37  | 17  | --- |
| 38  | 18  | --- |
| 39  | 19  | --- |
| 40  | 20  | --- |



Connector Pin Diagram  
(from Connector Mating Side)



| Item               | Part   |                               |
|--------------------|--|-------------------------------|
| Terminal Connector | A side   | XG4M-4030-T (MIL connector)   |
|                    | B side   | XG4M-2030-Tx2 (MIL connector) |
| Cable              | UL2464 BC20P-SB AWG28(7/0.127)<br>Interface cable<br>Cable color: Gray<br>Tube color: XW2Z-RM□-□-D1 CN2: Red, CN3: Yellow<br>XW2Z-RM□-□-D2 CN2: Yellow, CN3: Red |                               |

## For Mitsubishi Electric PLCs

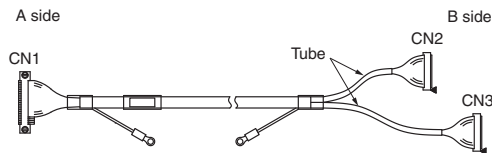
### (14) Mitsubishi Electric PLC Connecting Cables

(1:2) (32 input points)

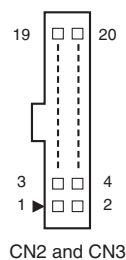
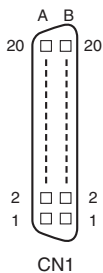
XW2Z-RI□C-MN

| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1A  | NC  |     |
| 1B  | 3   | --- |
| 2A  | NC  |     |
| 2B  | --- | 4   |
| 3A  | NC  |     |
| 3B  |     |     |
| 4A  |     |     |
| 4B  |     |     |
| 5A  | --- | 5   |
| 5B  | 5   | --- |
| 6A  | --- | 7   |
| 6B  | 7   | --- |
| 7A  | --- | 9   |
| 7B  | 9   | --- |
| 8A  | --- | 11  |
| 8B  | 11  | --- |
| 9A  | --- | 13  |
| 9B  | 13  | --- |
| 10A | --- | 15  |
| 10B | 15  | --- |
| 11A | --- | 17  |
| 11B | 17  | --- |
| 12A | --- | 19  |
| 12B | 19  | --- |
| 13A | --- | 6   |
| 13B | 6   | --- |
| 14A | --- | 8   |
| 14B | 8   | --- |
| 15A | --- | 10  |
| 15B | 10  | --- |
| 16A | --- | 12  |
| 16B | 12  | --- |
| 17A | --- | 14  |
| 17B | 14  | --- |
| 18A | --- | 16  |
| 18B | 16  | --- |
| 19A | --- | 18  |
| 19B | 18  | --- |
| 20A | --- | 20  |
| 20B | 20  | --- |

**Note:** The G70V or G7TC connector pin numbers are not the same as the XW2Z-R Cable connector pin numbers. Refer to the datasheet for specific products for details.



Connector Pin Diagram  
(from Connector Mating Side)



### (15) Mitsubishi Electric PLC Connecting Cables

(1:2) (32 output points)

XW2Z-RO□C-MN

| CN1 | CN2 | CN3 |
|-----|-----|-----|
| 1A  | --- | 4   |
| 1B  | --- | 2   |
| 2A  | 4   | --- |
| 2B  | 2   | --- |
| 3A  | NC  |     |
| 3B  |     |     |
| 4A  |     |     |
| 4B  |     |     |
| 5A  | --- | 5   |
| 5B  | 5   | --- |
| 6A  | --- | 7   |
| 6B  | 7   | --- |
| 7A  | --- | 9   |
| 7B  | 9   | --- |
| 8A  | --- | 11  |
| 8B  | 11  | --- |
| 9A  | --- | 13  |
| 9B  | 13  | --- |
| 10A | --- | 15  |
| 10B | 15  | --- |
| 11A | --- | 17  |
| 11B | 17  | --- |
| 12A | --- | 19  |
| 12B | 19  | --- |
| 13A | --- | 6   |
| 13B | 6   | --- |
| 14A | --- | 8   |
| 14B | 8   | --- |
| 15A | --- | 10  |
| 15B | 10  | --- |
| 16A | --- | 12  |
| 16B | 12  | --- |
| 17A | --- | 14  |
| 17B | 14  | --- |
| 18A | --- | 16  |
| 18B | 16  | --- |
| 19A | --- | 18  |
| 19B | 18  | --- |
| 20A | --- | 20  |
| 20B | 20  | --- |

**Note:** The G70V or G7TC connector pin numbers are not the same as the XW2Z-R Cable connector pin numbers. Refer to the datasheet for specific products for details.

| Item               | Part  |                               |
|--------------------|---|-------------------------------|
| Terminal Connector | A side  | FCN-367J040-AU/FW*            |
|                    | B side  | XG4M-2030-Tx2 (MIL connector) |
| Cable              | UL2464 BC20P-SB AWG28(7/0.127)<br>Interface cable<br>Cable color: Gray<br>Tube color: XW2Z-RI□C-MN CN2, CN3: Gray<br>XW2Z-RO□C-MN CN2, CN3: Black |                               |

\* The connector is made by Fujitsu Component Ltd.

## Ratings and Specifications

|                               |  |
|-------------------------------|--|
| Rated current                 | 1 A  |
| Rated voltage                 | 250 V  |
| Contact resistance            | 20 mΩ max. (at 20 mV, 100 mA max.) *           |
| Insulation resistance         | 1,000 MΩ min. (at 500 VDC) *                   |
| Dielectric strength           | 500 VAC for 1 min (leakage current: 1 mA max.) |
| Ambient operating temperature | 0 to 80°C                                      |

\* These values are for the connectors.

## Safety Precautions

Be sure to read *Safety Precautions for All I/O Relay Terminals* in the website at:

<http://www.ia.omron.com/>.

### Warning Indications

|                                    |   |
|------------------------------------|---|
| <b>Precautions for Correct Use</b> | Supplementary comments on what to do or avoid doing, to prevent failure to operate, malfunction, or undesirable effects on product performance. |
|------------------------------------|---|

### Precautions for Correct Use

### Wiring

- Do not perform wiring work, remove connectors, or connect connectors while power is being supplied. Electric shock or damage to the device may result.
- Double-check all wiring before turning ON the power supply.
- After wiring, route the cable so that force is not applied directly to the connections.

### Bending Radius of Connecting Cables

- To prevent damaging the Connecting Cables, use the following minimum bending radii as guidelines.

Minimum bending radius

| Wiring diagram No. | Model          | Minimum bending radius (mm) |
|--------------------|----------------|-----------------------------|
| (1)                | XW2Z-RY□C      | 68                          |
| (2)                | XW2Z-RA□C      | 50                          |
| (3)                | XW2Z-R□C       | 68                          |
| (4)                | XW2Z-RI□C-□    | 88                          |
| (5)                | XW2Z-RO□C-□    |                             |
| (6)                | XW2Z-R□C-□-□   | 99                          |
| (7)                | XW2Z-RO□C      | 68                          |
| (8)                | XW2Z-RI□C      |                             |
| (9)                | XW2Z-RO□-□-D1  | 88                          |
| (10)               | XW2Z-RI□-□-D1  |                             |
| (11)               | XW2Z-RI□-□-D2  |                             |
| (12)               | XW2Z-RM□-□-D1  |                             |
| (13)               | XW2Z-RM□-□-D2  |                             |
| (14)               | XW2Z-RI□C-□-MN | 88                          |
| (15)               | XW2Z-RO□C-□-MN |                             |

Refer to the manuals for the connected PLC for the connections to I/O Units for OMRON PLCs.

| Series | Model   | Man. No. | Manual Name   |
|--------|---|----------|---|
| CS1    | CS1G-CPU□□H, CS1H-CPU□□H  | W339     | Programmable Controllers Operation Manual           |
| CJ1    | CJ1H-CPU□□H-R, CJ1G/H-CPU□□H, CJ1G-CPU□□P, CJ1M-CPU□□, CJ1G-CPU□□ | W393     | CJ Series Programmable Controllers Operation Manual |
| CJ2    | CJ2H-CPU6□-EIP, CJ2H-CPU6□, CJ2M-CPU□□                            | W472     | CJ-series CJ2 CPU Unit Hardware User's Manual       |
| NJ     | NJ501-□□□□  | W500     | NJ-series CPU Unit Hardware User's Manual           |
| NX     | NX-ID□□□□, NX-IA□□□□, NX-OD□□□□, NX-OC□□□□, NX-MD□□□□             | W521     | NX-series Digital I/O Units User's Manual           |



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Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCT(S) IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

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## **Change in Specifications.**

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## **Errors and Omissions.**

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