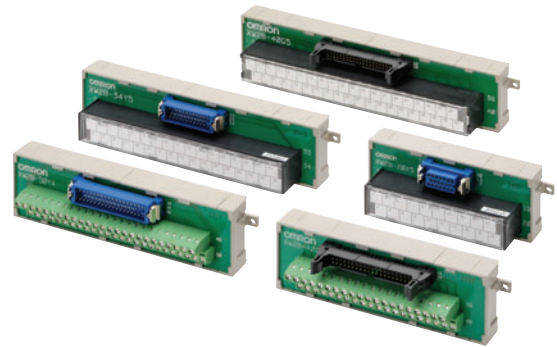



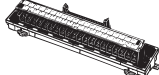
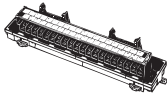
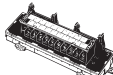

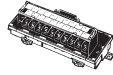
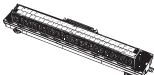

Simplifies Connector and terminal block replacement, and requires less in-panel wiring.

- Mount to DIN Track or via screws.
- MIL Flat Cable Connectors and Multi-pole, Square Connectors are standard.
- Terminal blocks available with either M3 or M3.5 screws.
- Connecting Cables for Programmable Controllers available (sold separately).



Ordering Information

Connectors

| Type | Terminal Block | Connector | No. of poles | Appearance | Model | |
|------------------------------|---------------------------------|---------------------------------------|--------------|---|--|-----------|
| Flat Cable | Terminal block with M3 screws | Flat Cable Connectors *1 | 20 |  | XW2B-20G4 | |
| | | | 34 | | XW2B-34G4 | |
| | | | 40 | | XW2B-40G4 | |
| | | | 50 | | XW2B-50G4 | |
| | | | 60 | | XW2B-60G4 | |
| | Terminal block with M3.5 screws | | 20 |  | XW2B-20G5 | |
| | | | 34 | | XW2B-34G5 | |
| | | | 40 | | XW2B-40G5 | |
| | | | 50 | | XW2B-50G5 | |
| | | | 60 | | XW2B-60G5 | |
| Twin-connector | Terminal block with M3.5 screws | Flat Cable Connectors *1 | 40 |  | XW2B-40G5-T | |
| Daisy Chain | | | 20 |  | XW2B-20G5-D | |
| Multi-pole, Square Connector | Terminal block with M3 screws | Multi-pole, Square Connector Plugs *2 | 20 |  | XW2B-20Y4 | |
| | | | 34 | | XW2B-34Y4 | |
| | | | 50 | | XW2B-50Y4 | |
| | Terminal block with M3.5 screws | | 20 |  | XW2B-20Y5 | |
| | | | 34 | | XW2B-34Y5 | |
| | | | 50 | | XW2B-50Y5 | |
| | | Multi-pole, Square Connector Plugs *2 | 20 | |  | XW2B-20X5 |
| | | | 34 | | | XW2B-34X5 |
| | | | 50 | | | XW2B-50X5 |
| Board I/O | Terminal block with M3.5 screws | Multi-pole, Square Connector Plugs *3 | 40 |  | XW2B-40F5-P | |

*1. Flat Cable Connectors have one polarity slot.

*2. These Plugs and Sockets are made by Honda Tsushin Kogyo.

*3. These Plugs are made by Fujitsu component.

Accessories (Order Separately)

Connecting Cables for Connector-Terminal Block Conversion Units

For details on the Connecting Cable used between XW2B Daisy Chain-type Connectors, refer to the *XW2Z datasheet*.

Ratings and Specifications

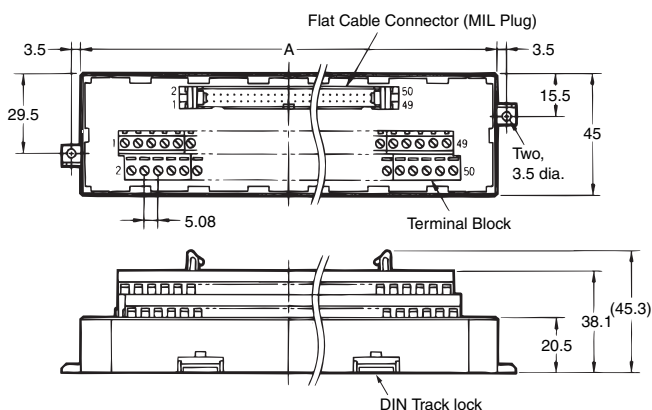
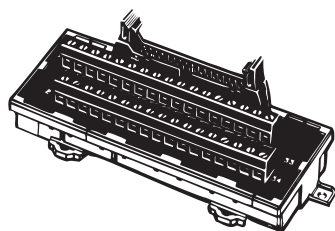
| Item | Type | XW2B-□□G□ Flat Cable Units | XW2B-□□Y□ Multi-pole, Square-connector Units | XW2B-40F5-P Board I/O Unit |
|-------------------------------|------|--|---|-------------------------------|
| Rated current | | 1 A | | |
| Rated voltage | | 125 VAC | | |
| Insulation resistance | | 100 MΩ min. (at 500 VDC) | | |
| Dielectric strength | | 500 VAC for 1 min (leakage current: 1 mA max.) | | |
| Ambient operating temperature | | 0 to 55°C | | |

Dimensions

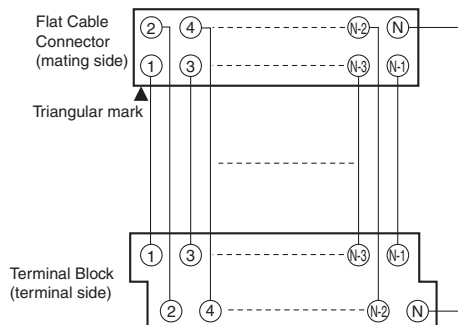
(Unit: mm)

Flat Cable Units with a Terminal Block with M3 Screws

XW2B-□□G4



Wiring Diagram



Note: All pins on the Flat Cable Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

Dimensions

| Model | No. of poles | Dimension A (mm) | Applicable Connector models *1 |
|-----------|--------------|------------------|--------------------------------|
| XW2B-20G4 | 20 | 67.5 | XG4A-2031 |
| XW2B-34G4 | 34 | 112.5 | XG4A-3431 |
| XW2B-40G4 | 40 | 135.0 | XG4A-4031 |
| XW2B-50G4 | 50 | 157.5 | XG4A-5031 |
| XW2B-60G4 | 60 | 180.0 | XG4A-6031 |

*Flat Cable Connectors have one polarity slot.

Note: Terminal block pitch is 5.08 mm.

Use a wire size between 0.3 and 1.25 mm² (AWG22 to AWG16).

The wire insertion holes are 1.8 × 2.5 (H × W) mm.

Applicable Connectors

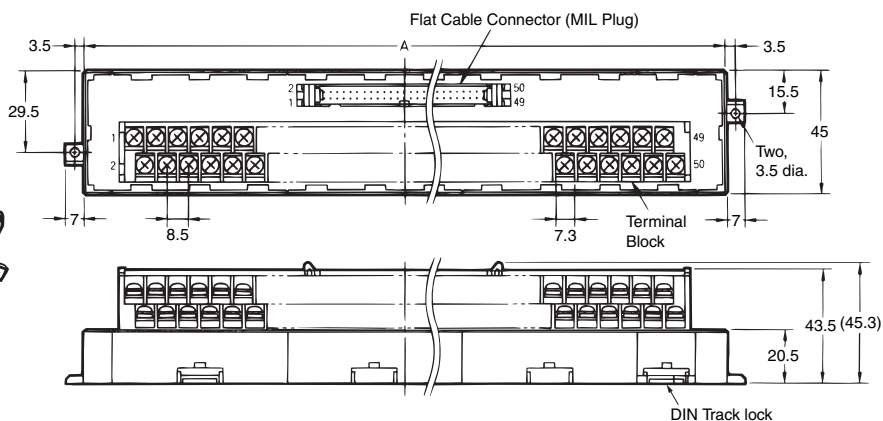
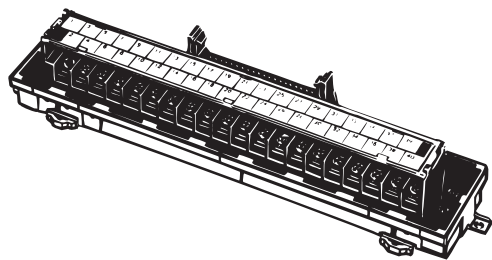
| Model | Applicable Connectors (order separately) | | |
|-----------|--|--|----------------|
| | Flat Cable Connectors, MIL Sockets with Strain Reliefs | Discrete-wire IDC Connectors, Double-row Sockets | |
| | | Connectors *1 | Semi-covers *2 |
| XW2B-20G4 | XG4M-2030-T | XG5M-2032-N XG5M-2035-N | XG5S-1001 |
| XW2B-34G4 | XG4M-3430-T | XG5M-3432-N XG5M-3435-N | XG5S-1701 |
| XW2B-40G4 | XG4M-4030-T | XG5M-4032-N XG5M-4035-N | XG5S-2001 |
| XW2B-50G4 | XG4M-5030-T | XG5M-5032-N XG5M-5035-N | XG5S-2501 |
| XW2B-60G4 | XG4M-6030-T | XG5M-6032-N XG5M-6035-N | XG5S-3001 |

*1. Either the XG5M-□□32-N or the XG5M-□□35-N may be used.

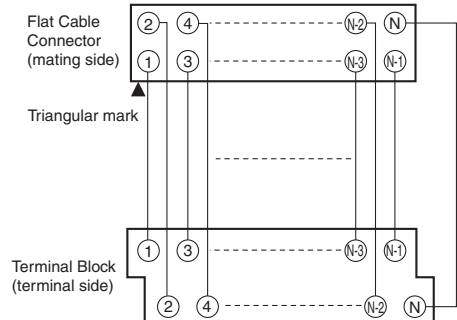
*2. Each Connector requires two Semi-covers.

Flat Cable Units with a Terminal Block with M3.5 Screws

XW2B-□□G5



Wiring Diagram



Note: All pins on the Flat Cable Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

Dimensions

| Model | No. of poles | Dimension A (mm) | Applicable Connector models * |
|-----------|--------------|------------------|-------------------------------|
| XW2B-20G5 | 20 | 112.5 | XG4A-2031 |
| XW2B-34G5 | 34 | 180.0 | XG4A-3431 |
| XW2B-40G5 | 40 | 202.5 | XG4A-4031 |
| XW2B-50G5 | 50 | 247.5 | XG4A-5031 |
| XW2B-60G5 | 60 | 292.5 | XG4A-6031 |

*Flat Cable Connectors have one polarity slot.

Note: Terminal block pitch is 8.5 mm.

Applicable Connectors

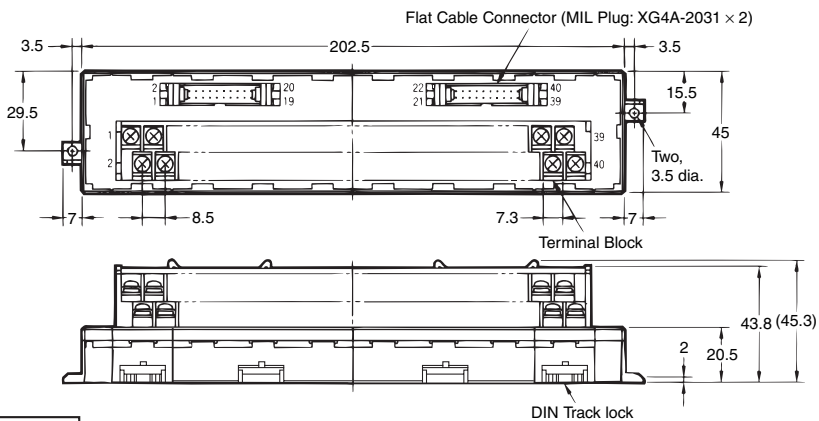
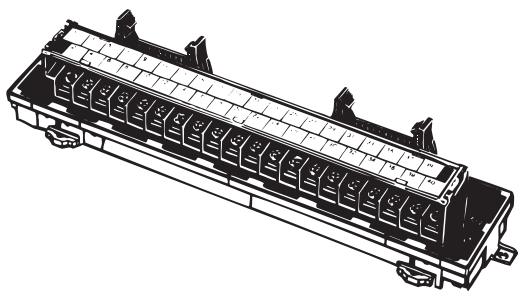
| Model | Applicable Connectors (order separately) | | |
|-----------|--|--|----------------|
| | Flat Cable Connectors, MIL Sockets with Strain Reliefs | Discrete-wire IDC Connectors, Double-row Sockets | |
| | | Connectors *1 | Semi-covers *2 |
| XW2B-20G5 | XG4M-2030-T | XG5M-2032-N XG5M-2035-N | XG5S-1001 |
| XW2B-34G5 | XG4M-3430-T | XG5M-3432-N XG5M-3435-N | XG5S-1701 |
| XW2B-40G5 | XG4M-4030-T | XG5M-4032-N XG5M-4035-N | XG5S-2001 |
| XW2B-50G5 | XG4M-5030-T | XG5M-5032-N XG5M-5035-N | XG5S-2501 |
| XW2B-60G5 | XG4M-6030-T | XG5M-6032-N XG5M-6035-N | XG5S-3001 |

*1. Either the XG5M-□□32-N or the XG5M-□□35-N may be used.

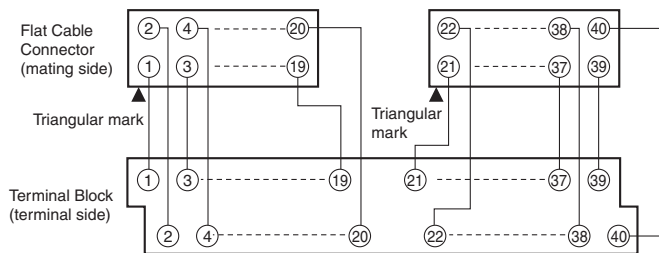
*2. Each Connector requires two Semi-covers.

Twin-connector Units with a Terminal Block with M3.5 Screws

XW2B-40G5-T



Wiring Diagram



Note: All pins on the Flat Cable Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

Applicable Connectors

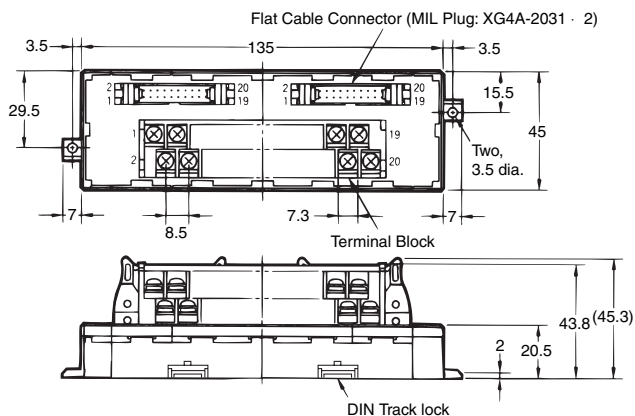
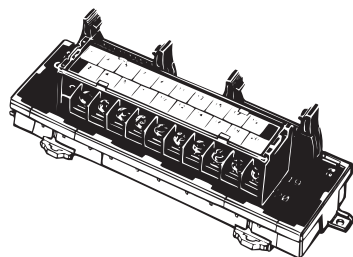
| Model | Applicable Connectors (order separately) | | |
|-------------|--|--|----------------|
| | Flat Cable Connectors, MIL Sockets with Strain Reliefs | Discrete-wire IDC Connectors, Double-row Sockets | |
| | | Connectors *1 | Semi-covers *2 |
| XW2B-40G5-T | XG4M-2030-T | XG5M-2032-N XG5M-2035-N | XG5S-1001 |

*1. Either the XG5M-□□32-N or the XG5M-□□35-N may be used.

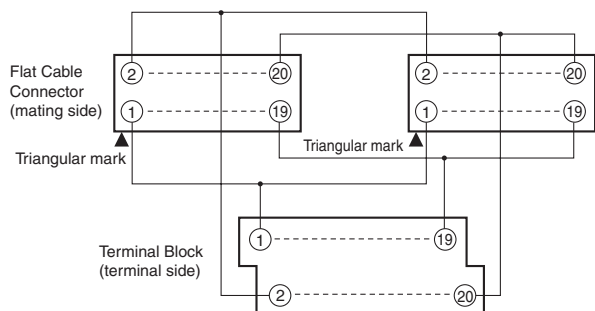
*2. Each Connector requires two Semi-covers.

Daisy Chain Units with a Terminal Block with M3.5 Screws

XW2B-20G5-D



Wiring Diagram



Note: All pins on the Flat Cable Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

Applicable Connectors

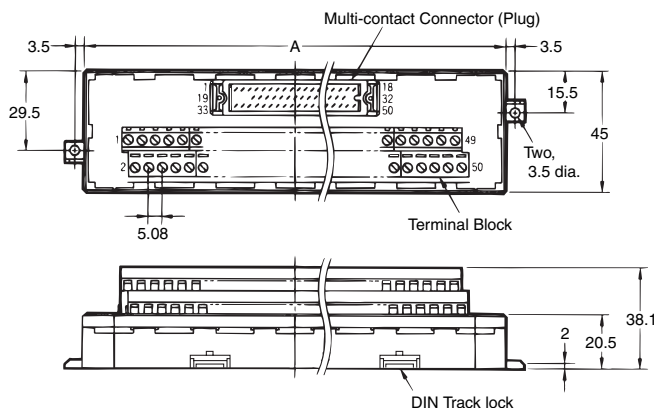
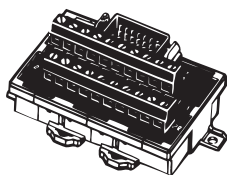
| Model | Applicable Connectors (order separately) | | |
|-------------|--|--|----------------|
| | Flat Cable Connectors, MIL Sockets with Strain Reliefs | Discrete-wire IDC Connectors, Double-row Sockets | |
| | | Connectors *1 | Semi-covers *2 |
| XW2B-20G5-D | XG4M-2030-T | XG5M-2032-N XG5M-2035-N | XG5S-1001 |

*1. Either the XG5M-□□32-N or the XG5M-□□35-N may be used.

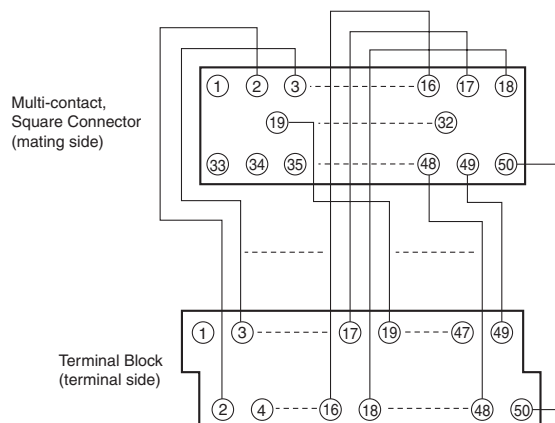
*2. Each Connector requires two Semi-covers.

Multi-pole, Square-connector Plug Units with a Terminal Block with M3 Screws

XW2B-□□Y4



Wiring Diagram (Example for Terminal Block with 50 Poles)



Note: All pins on the Multi-pole, Square Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

Dimensions

| Model | No. of poles | Dimension A (mm) | Applicable Connector models * |
|-----------|--------------|------------------|-------------------------------|
| XW2B-20Y4 | 20 | 67.5 | MR-20RMD2 |
| XW2B-34Y4 | 34 | 112.5 | MR-34RMD2 |
| XW2B-50Y4 | 50 | 157.5 | MR-50RMD2 |

*These Connectors are made by Honda Tsushin Kogyo.
 Note: Terminal block pitch is 5.08 mm.
 Use a wire size between 0.3 and 1.25 mm² (AWG22 to AWG16).
 The wire insertion holes are 1.8 × 2.5 (H × W) mm.

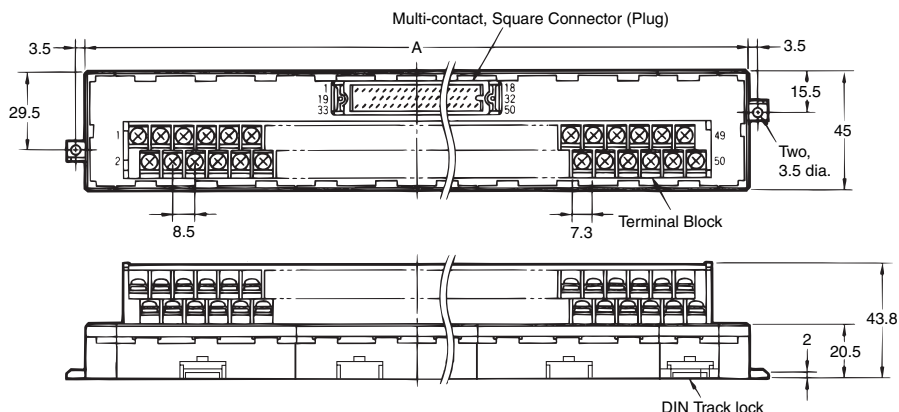
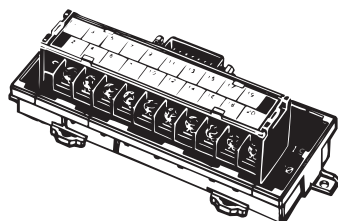
Applicable Connectors

| Model | Applicable Connectors *1 | Hood *1 |
|-----------|--|---------|
| XW2B-20Y4 | MR-20F (soldered) MRP-20F01 (crimped) *2 MR-20FW (wrapped) | MR-20L |
| XW2B-34Y4 | MR-34F (soldered) MRP-34F01 (crimped) *2 MR-34FW (wrapped) | MR-34L |
| XW2B-50Y4 | MR-50F (soldered) MRP-50F01 (crimped) *2 MR-50FW (wrapped) | MR-50L |

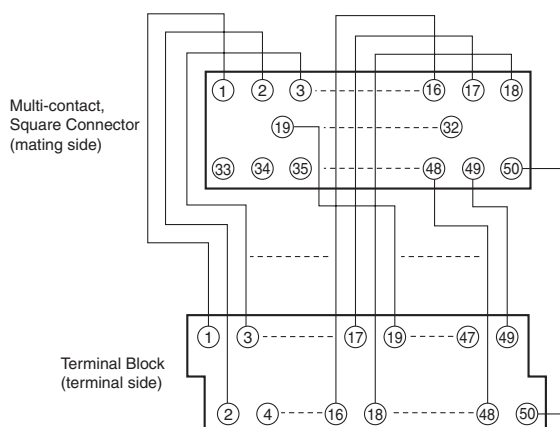
*1. All applicable Connector Hoods are made by Honda Tsushin Kogyo.
 *2. Use MRP-F113 or MRP-F103 crimp terminals made by Honda Tsushin Kogyo.

Multi-pole, Square-connector Plug Units with a Terminal Block with M3.5 Screws

XW2B-□□Y5



Wiring Diagram (Example for Terminal Block with 50 Poles)



Note: All pins on the Multi-pole, Square Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

Dimensions

| Model | No. of poles | Dimension A (mm) | Applicable Connector models * |
|-----------|--------------|------------------|-------------------------------|
| XW2B-20Y5 | 20 | 112.5 | MR-20RMD2 |
| XW2B-34Y5 | 34 | 180.0 | MR-34RMD2 |
| XW2B-50Y5 | 50 | 247.5 | MR-50RMD2 |

*These Connectors are made by Honda Tsushin Kogyo.
Note: Terminal block pitch is 8.5 mm.

Applicable Connectors

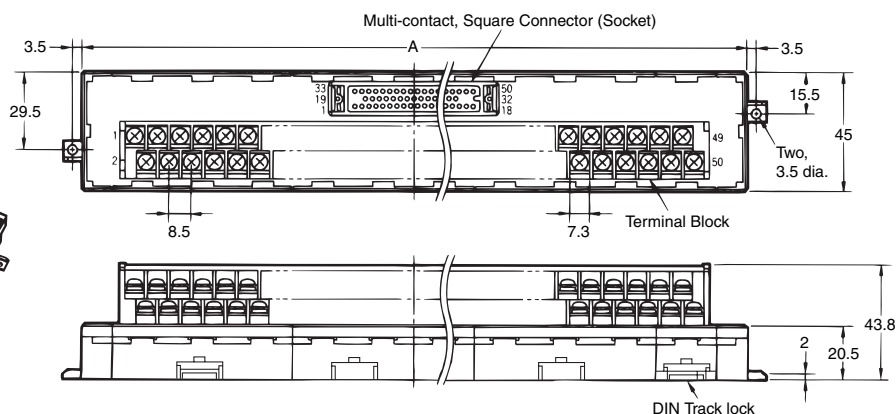
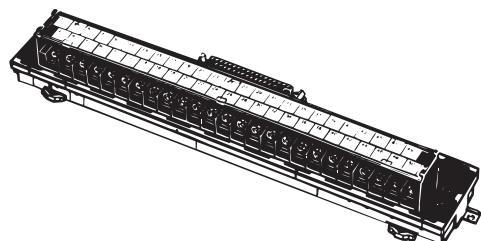
| Model | Applicable Connectors *1 | Hood *1 |
|-----------|--|---------|
| XW2B-20Y5 | MR-20F (soldered) MRP-20F01 (crimped) *2 MR-20FW (wrapped) | MR-20L |
| XW2B-34Y5 | MR-34F (soldered) MRP-34F01 (crimped) *2 MR-34FW (wrapped) | MR-34L |
| XW2B-50Y5 | MR-50F (soldered) MRP-50F01 (crimped) *2 MR-50FW (wrapped) | MR-50L |

*1. All applicable Connector Hoods are made by Honda Tsushin Kogyo.

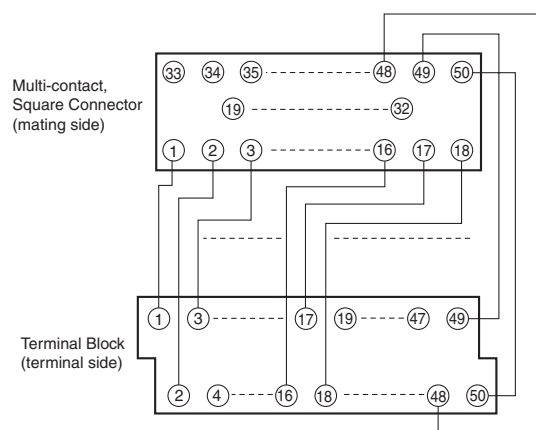
*2. Use MRP-F113 or MRP-F103 crimp terminals made by Honda Tsushin Kogyo.

Multi-pole, Square Connector Socket Units with a Terminal Block with M3.5 Screws

XW2B-□□X5



Wiring Diagram (Example for Terminal Block with 50 Poles)



Note: All pins on the Multi-pole, Square Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

Dimensions

| Model | No. of poles | Dimension A (mm) | Applicable Connector models * |
|-----------|--------------|------------------|-------------------------------|
| XW2B-20X5 | 20 | 112.5 | MR-20RFD2 |
| XW2B-34X5 | 34 | 180.0 | MR-34RFD2 |
| XW2B-50X5 | 50 | 247.5 | MR-50RFD2 |

*These Connectors are made by Honda Tsushin Kogyo.
Note: Terminal block pitch is 8.5 mm.

Applicable Connectors

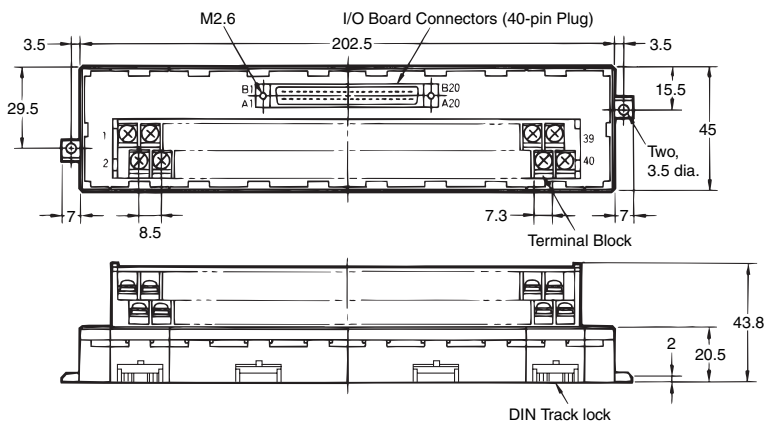
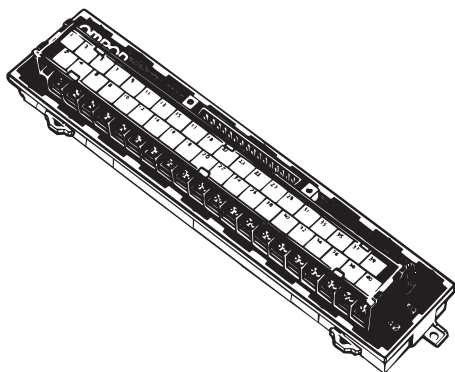
| Model | Applicable Connectors *1 | Hood *1 |
|-----------|--|---------|
| XW2B-20X5 | MR-20M (soldered) MRP-20M01 (crimped) *2 MR-20MW (wrapped) | MR-20L |
| XW2B-34X5 | MR-34M (soldered) MRP-34M01 (crimped) *2 MR-34MW (wrapped) | MR-34L |
| XW2B-50X5 | MR-50M (soldered) MRP-50M01 (crimped) *2 MR-50MW (wrapped) | MR-50L |

*1. All applicable Connector Hoods are made by Honda Tsushin Kogyo.

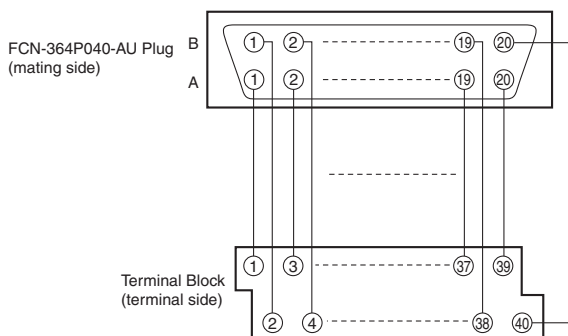
*2. Use MRP-F113 or MRP-F103 crimp terminals made by Honda Tsushin Kogyo.

Board I/O Units with a Terminal Block with M3.5 Screws

XW2B-40F5-P



Wiring Diagram



Dimensions

| Model | No. of poles | Applicable Connectors and Circuits * |
|-------------|--------------|---|
| XW2B-40F5-P | 40 | FCN-364P40-AU (Connector) FCN-360A1 (Anchor) |

*These Connectors and circuits are made by Fujitsu component.
Note: Terminal block pitch is 8.5 mm.

Applicable Connectors

| Model | Applicable Connectors *1 | Hood *1 |
|-------------|--|--------------|
| XW2B-40F5-P | FCN361J040-AU (soldered) FCN363J040-AAU (crimped) | FCN360C040-B |

*1. All applicable Connectors and Covers are made by Fujitsu component.

*2. Refer to the *OMNUC U Series user's manual* for details on the Connecting Cable used between the XW2B-40F5-P and the U-series AC Servo Driver.

Safety Precautions

Precautions for Correct Use

● Wiring

- Always turn OFF the power supply before wiring. Otherwise, cables or other conductors can short the terminals and cause the Unit to fail.
- Do not connect or disconnect Connectors with the power turned ON. Otherwise, it may cause malfunctions.

● Wiring Terminal Blocks

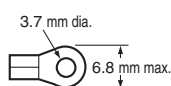
- Direct Wire Connections with a Terminal Block with M3 Screws
 1. Use a wire size between 0.3 and 1.25 mm² (AWG22 to AWG16).
 2. Prepare the end of each wire as shown in the following diagram.



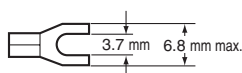
3. The wire insertion holes are 1.8 × 2.5 (H × W) mm on the terminal block with M3 screws.

- Direct Wire Connections with a Terminal Block with M3.5 Screws

Round



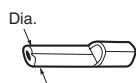
Forked



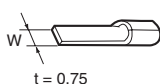
| | Applicable crimp terminals | Applicable wires |
|--------|----------------------------|--|
| Round | 1.25-3.5 | AWG22 to AWG16 (0.30 to 1.25 mm ²) |
| | 2-3.5 | AWG16 to AWG14 (1.25 to 2.0 mm ²) |
| Forked | 1.25Y-3.5 | AWG22 to AWG16 (0.30 to 1.25 mm ²) |
| | 2Y-3.5 | AWG16 to AWG14 (1.25 to 2.0 mm ²) |

(With a Terminal Block with M3 Screws)

Round rod



Blade



| | Applicable crimp terminals | Applicable wires |
|-------|--------------------------------------|--|
| Rod | TC-05 Dia. = 1 | AWG22 to AWG18 (0.30 to 0.75 mm ²) |
| | TC-1.25S Dia. = 1.5 | AWG22 to AWG16 (0.30 to 1.25 mm ²) |
| Blade | BT1.25-9-1 BT1.25-10-1 W = 2.2 | AWG22 to AWG16 (0.30 to 1.25 mm ²) |

Note: Round rod and blade crimp terminals are made by Nichifu.

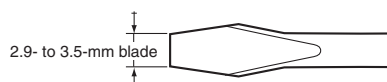
● Terminal Screw Tightening Torque

- Select a tightening torque from the following table when connecting wires or crimp terminals to the terminal block.

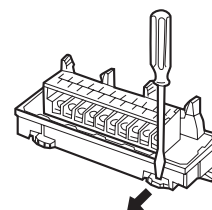
| Terminal Block | Tightening torque N·m |
|------------------|-----------------------|
| With M3 screws | 0.40 |
| With M3.5 screws | 0.59 |

● Mounting Units to and Removing Units from DIN Track

- For terminal blocks with M3 screws, use a flat-head screwdriver like the one shown in the following diagram.



- XW2B Connector-Terminal Block Conversion Units can be mounted side-to-side on DIN Track. The flanges for mounting screws are located on each side at the bottom of the XW2B.
- Secure both ends of the XW2B with End Plates.
- When removing the Unit from a DIN Track, insert a flat-head screwdriver into the slider and pull the lock out.



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.

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