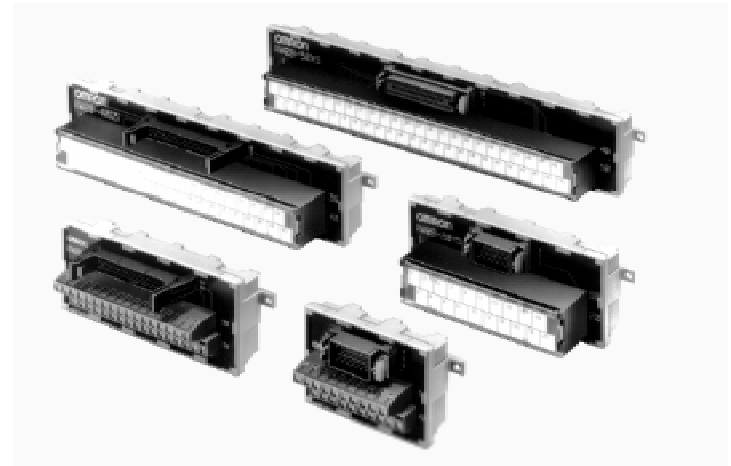


## Screw Terminal Blocks

XW2B

Enables Easy Conversion between Connector and Terminal Block, and Reduces Wiring

- Easily mounts to DIN rail track or with screws for panel mounting
- Compact, space-saving design
- MIL-style cable connector built-in
- Terminal blocks available with either M3 or M3.5 terminal screws
- Dedicated cables are available for the PLC (sold separately)



## Ordering Information

Appearance	Connector type	Connector	Terminals	No. of contacts	Part number
	Flat-cable connector	Flat-cable connector	M3 screw terminals	20	XW2B-20G4
				34	XW2B-34G4
				40	XW2B-40G4
				60	XW2B-60G4
	Flat-cable connector	Flat-cable connector	M3.5 screw terminals	20	XW2B-20G5
				34	XW2B-34G5
				40	XW2B-40G5
				60	XW2B-60G5
	Twin connector	Flat-cable connector	M3.5 screw terminals	40	XW2B-40G5-T
	Daisy chain			20	XW2B-20G5-D
	Multi-pole square connector	Multi-pole square connector plug (made by Honda Tsushin Kogyo)	M3 screw terminals	20	XW2B-20Y4
				34	XW2B-34Y4
				50	XW2B-50Y4
	Multi-pole square connector	Multi-pole square connector plug (made by Honda Tsushin Kogyo)	M3.5 screw terminals	20	XW2B-20Y5
				34	XW2B-34Y5
				50	XW2B-50Y5
	Multi-pole square connector	Multi-pole square connector socket (made by Honda Tsushin Kogyo)	M3.5 screw terminals	20	XW2B-20X5
				34	XW2B-34X5
				50	XW2B-50X5
	PCB I/O connector	PCB I/O connector plug (made by Fujitsu)	M3.5 screw terminals	40	XW2B-40F5-P

## CONNECTORS

The following tables describe the connectors and cables available for each type of XW2B wiring block.

### XW2B-G4 Flat-cable Connector Type with M3 Screw Terminals

Wiring block	Connector			
	Flat-cable connector MIL-type socket		Discrete-wire IDC connector 2-row socket	
	Connector	Strain relief	Connector (See Note 1)	Semi-cover (See Note 2)
XW2B-20G4	XG4M-2030	XG4T-2004	XG5M-2032-N XG5M-2035-N	XG5S-1001
XW2B-34G4	XG4M-3430	XG4T-3404	XG5M-3432-N XG5M-3435-N	XG5S-1701
XW2B-40G4	XG4M-4030	XG4T-4004	XG5M-4032-N XG5M-4035-N	XG5S-2001
XW2B-60G4	XG4M-6030	XG4T-6004	Consult Omron	Consult Omron

- Note: 1. The XG5M-□□32-N or the XG5M-□□35-N may be used.  
2. Each connector requires two semi-covers.

### XW2B-G5 Flat-Cable Connector Type with M3.5 Screw Terminals

Wiring block	Connector			
	Flat-cable connector MIL-type socket		Discrete-wire IDC connector 2-row socket	
	Connector	Strain relief	Connector (See Note 1)	Semi-cover (See Note 2)
XW2B-20G5	XG4M-2030	XG4T-2004	XG5M-2032-N XG5M-2035-N	XG5S-1001
XW2B-34G5	XG4M-3430	XG4T-3404	XG5M-3432-N XG5M-3435-N	XG5S-1701
XW2B-40G5	XG4M-4030	XG4T-4004	XG5M-4032-N XG5M-4035-N	XG5S-2001
XW2B-60G5	XG4M-6030	XG4T-6004	Consult Omron	Consult Omron

- Note: 1. Either the XG5M-□□32-N or the XG5M-□□35-N may be used.  
2. Each connector requires two semi-covers.

### XW2B-40G5-T Twin Connector Type with M3.5 Screw Terminals

Wiring block	Connector		
	Flat-cable connector MIL-type socket	Discrete-wire IDC connector 2-row socket	
	Strain relief	Connector (See Note 1)	Semi-cover (See Note 2)
XW2B-40G5-T	XG4M-2030-T	XG5M-2032-N XG5M-2035-N	XG5S-1001

- Note: 1. Either the XG5M-□□32-N or the XG5M-□□35-N may be used.  
2. Each connector requires two semi-covers.

### XW2B-20G5-T Daisy Chain Type with M3.5 Screw Terminals

Wiring block	Connector		
	Flat-cable connector MIL-type socket	Discrete-wire IDC connector 2-row socket	
	Strain relief	Connector (See Note 1)	Semi-cover (See Note 2)
XW2B-20G5-D	XG4M-2030-T	XG5M-2032-N XG5M-2035-N	XG5S-1001

- Note: 1. Either the XG5M-□□32-N or the XG5M-□□35-N may be used.  
2. Each connector requires two semi-covers.

**XW2B-Y4 Multi-pole Square Connector Plug Type with M3 Screw Terminals**

Wiring block	Connector (See Note 1)	Hood (See Note 1)
XW2B-20Y4	MR-20F (soldering) MRP-20F01 (crimp terminals) (See Note 2) MR-20FW (wrapping)	MR-20L
XW2B-34Y4	MR-34F (soldering) MRP-34F01 (crimp terminals) (See Note 2) MR-34FW (wrapping)	MR-34L
XW2B-50Y4	MR-50F (soldering) MRP-50F01 (crimp terminals) (See Note 2) MR-50FW (wrapping)	MR-50L

- Note: 1. All the connectors and hoods are made by Honda Tsushin Kogyo.  
2. Use Honda Tsushin Kogyo's MRP-F113 or MRP-F103 crimp terminals.

**XS2B-Y5 Multi-pole Square Connector Plug Type with M3.5 Screw Terminals**

Wiring block	Connector (See Note 1)	Hood (See Note 1)
XW2B-20Y5	MR-20F (soldering) MRP-20F01 (crimp terminals) (See Note 2) MR-20FW (wrapping)	MR-20L
XW2B-34Y5	MR-34F (soldering) MRP-34F01 (crimp terminals) (See Note 2) MR-34FW (wrapping)	MR-34L
XW2B-50Y5	MR-50F (soldering) MRP-50F01 (crimp terminals) (See Note 2) MR-50FW (wrapping)	MR-50L

- Note: 1. All the connectors and hoods are made by Honda Tsushin Kogyo.  
2. Use Honda Tsushin Kogyo's MRP-F113 or MRP-F103 crimp terminals.

**XW2B-X5 Multi-pole Square Connector Socket type with M3.5 Screw Terminals**

Wiring block	Connector (See Note 1)	Hood (See Note 1)
XW2B-20X5	MR-20M (soldering) MRP-20M01 (crimp terminals) (See Note 2) MR-20MW (wrapping)	MR-20L
XW2B-34X5	MR-34M (soldering) MRP-34M01 (crimp terminals) (See Note 2) MR-34MW (wrapping)	MR-34L
XW2B-50X5	MR-50M (soldering) MRP-50M01 (crimp terminals) (See Note 2) MR-50MW (wrapping)	MR-50L

- Note: 1. All the connectors and hoods are made by Honda Tsushin Kogyo.  
2. Use Honda Tsushin Kogyo's MRP-F113 or MRP-F103 crimp terminals.

**XW2B-40F5-P PCB I/O Connector Type with M3.5 Screw Terminals**

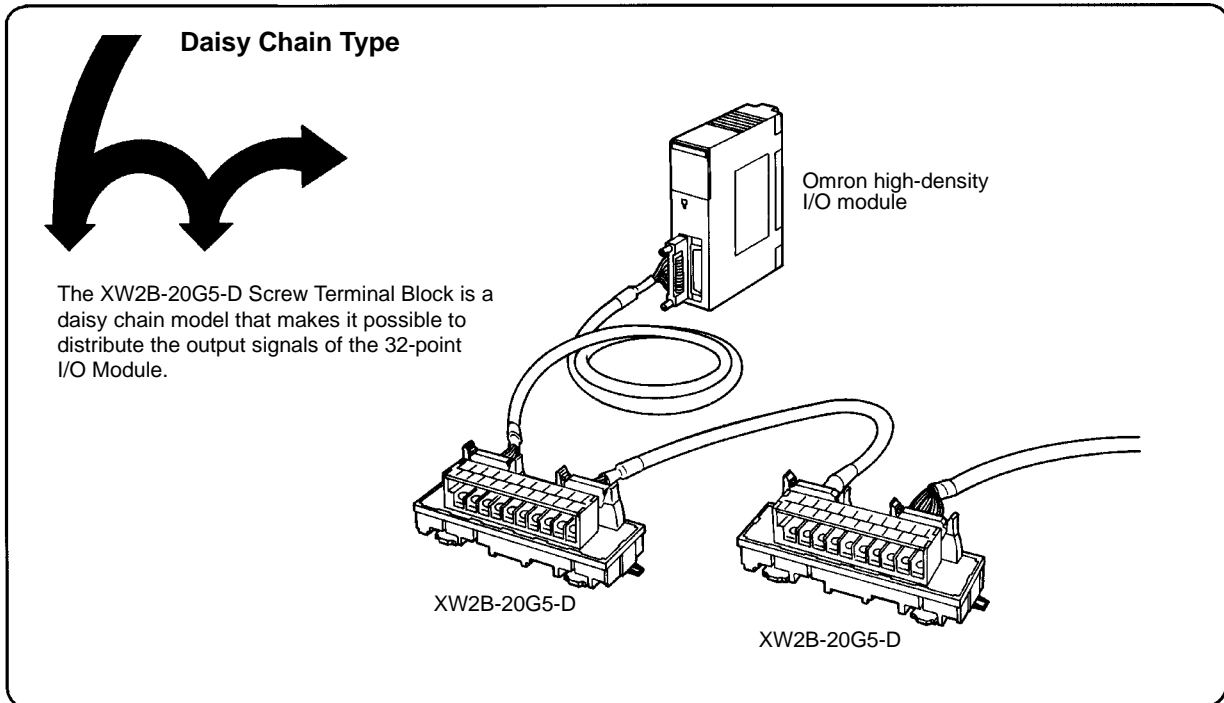
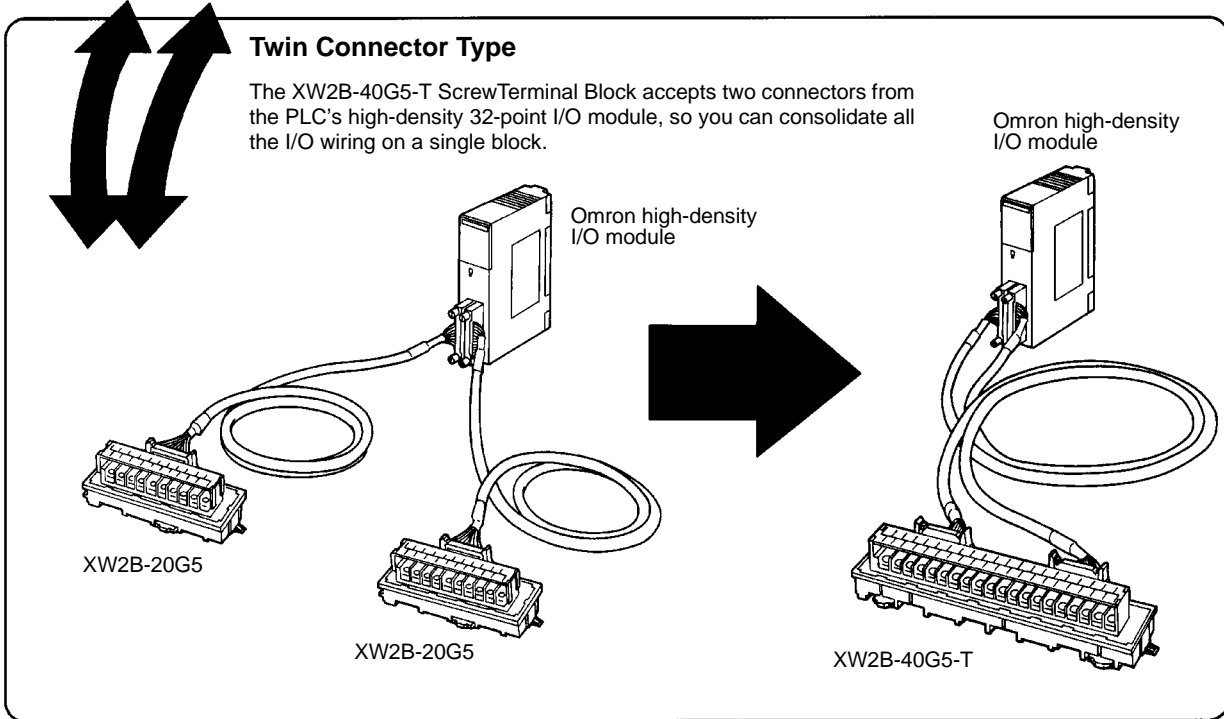
Wiring block	Connector (40-pole socket) (See Note 1)	Cover (See Note 1)
XW2B-40F5-P	FCN-361J040-AU (soldering) FCN-363J040-AU (crimp terminals)	FCN-360C040-B

- Note: 1. All the connectors and hoods are made by Fujitsu.  
2. For the special connecting cable between the XW2B-40F5-P and the AC Servo Driver (U Series), refer to the OMNUC U-series User's Manuals.

# Application Examples

## ■ REDUCE WIRING WITH XW2B SCREW TERMINAL BLOCKS AND 32-POINT PLC I/O MODULES

Here are two of Omron's cost-effective solutions for managing I/O wiring. These configurations show a range of installation choices to match your application needs. They both reduce cabinet space and installation costs.



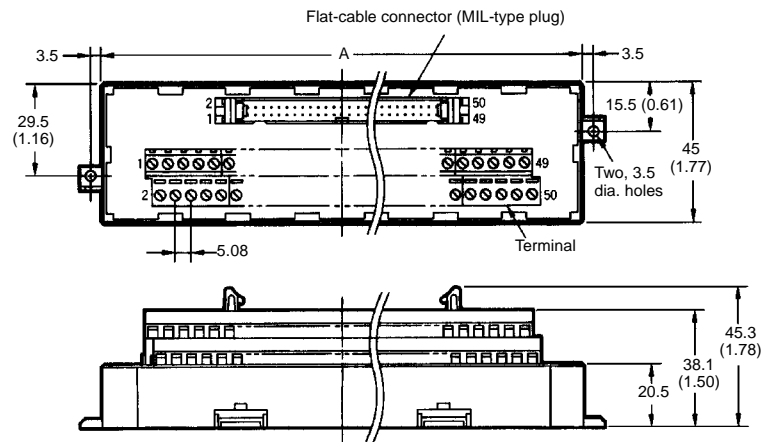
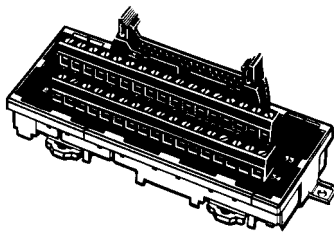
# Specifications

Item	Flat-cable connector	Multi-pole square connector	PCB I/O connector
	XW2B-□□G□	XW2B-□□Y□ XW2B-□□X5	XW2B-40F5-P
Rated current	1 A		
Rated voltage	125 VAC		
Insulation resistance	100 MΩ min. at 500 VDC		
Dielectric strength	500 VAC for 1 minute with a current leakage of 1 mA max.		
Enclosure rating	IP00		
Electrical protection	Class 0		
Ambient temperature	Operating: -25°C to 80°C (-13°F to 176°F)		

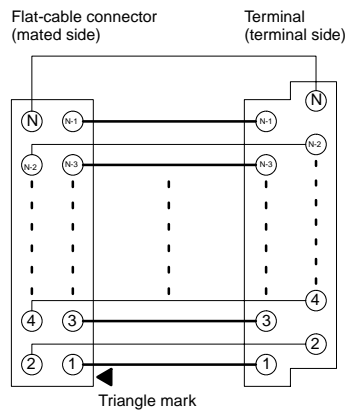
# Dimensions

Unit: mm (inch)

## XW2B-□□G4



### Connection Diagram



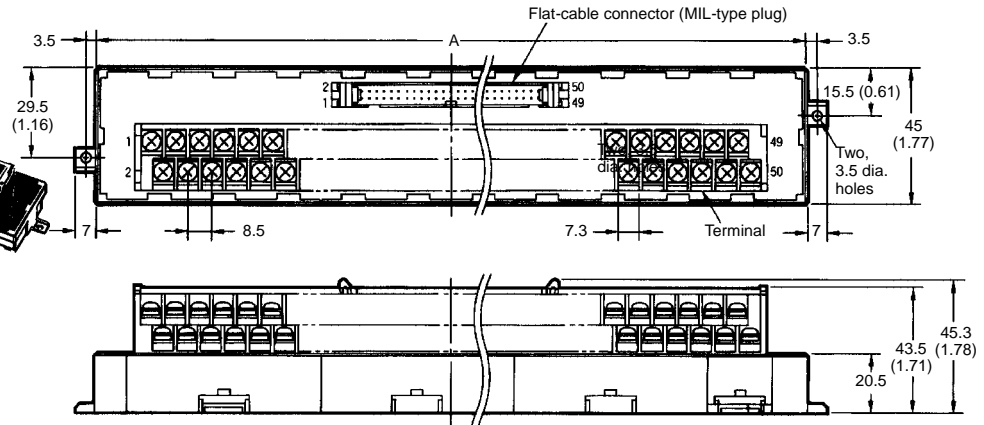
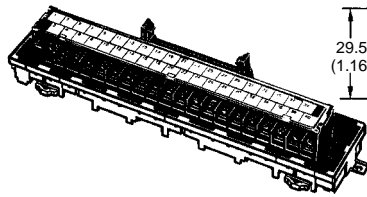
Model	No. of contacts	Length of A	Connector (See Note 1)
XW2B-20G4	20	67.5 (2.66)	XG4A-2031
XW2B-34G4	34	112.5 (4.43)	XG4A-3431
XW2B-40G4	40	135.0 (5.31)	XG4A-4031
XW2B-60G4	60	292.5 (11.51)	XG4A-6031

- Note: 1. The flat-cable connector has one polarity slot.  
 2. The contact pitch of the terminals is 5.08 mm (0.20 in). Use AWG22 to AWG16 wire, which is 0.3 to 1.25 mm<sup>2</sup> thick. The size of the wire inlet is 2.5 x 1.8 (W x H) mm.

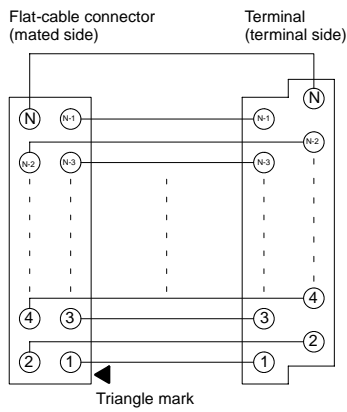
Refer to the connection diagrams when connecting the PLC through a dedicated XW2Z cable.

Unit: mm (inch)

XW2B-□□G5



Connection Diagram

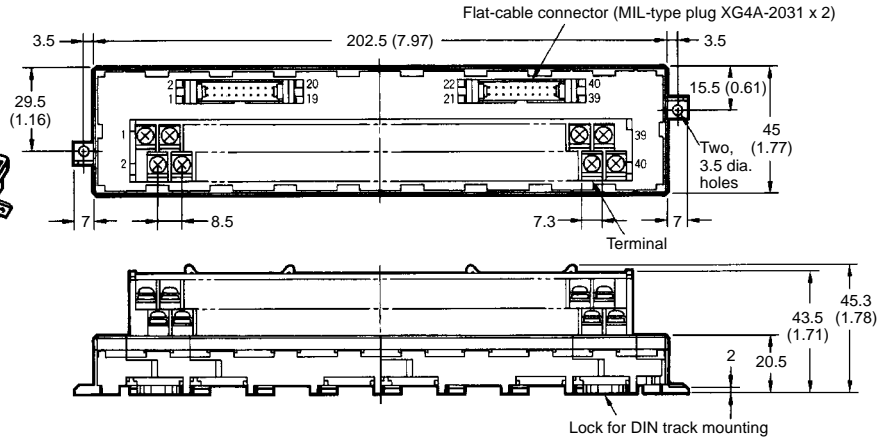
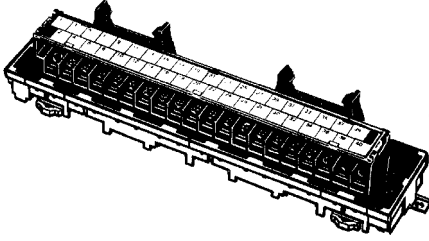


Model	No. of contacts	Length of A	Connector (See Note 1)
XW2B-20G5	20	112.5 (4.43)	XG4A-2031
XW2B-34G5	34	180.0 (7.09)	XG4A-3431
XW2B-40G5	40	202.5 (7.97)	XG4A-4031
XW2B-60G5	60	292.5 (11.51)	XG4A-6031

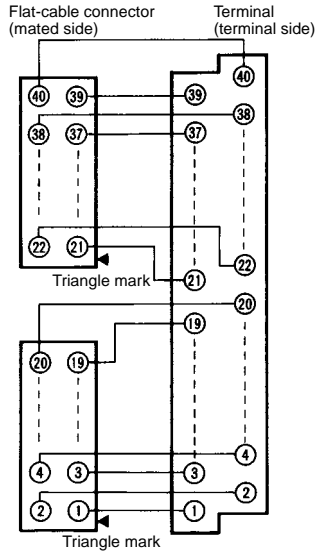
- Note: 1. The flat-cable connector has one polarity slot.  
 2. The contact pitch of the terminals is 8.5 mm (0.33 in).

Refer to the connection diagrams when connecting the PLC through a dedicated XW2Z cable.

**XW2B-40G5-T**

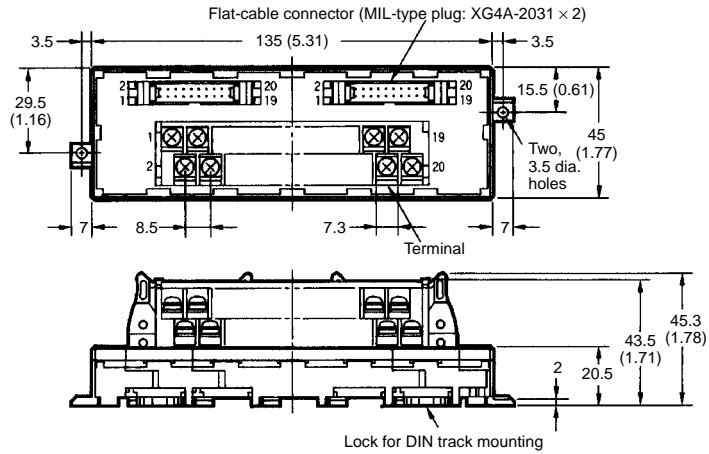
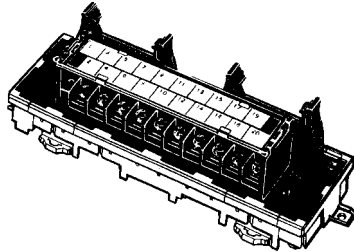


**Connection Diagram**

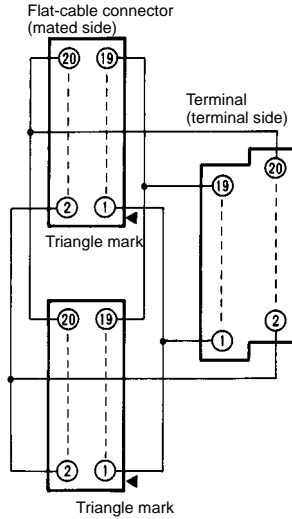


Refer to the connection diagrams when connecting the PLC through a dedicated XW2Z cable.

**XW2B-20G5-D**



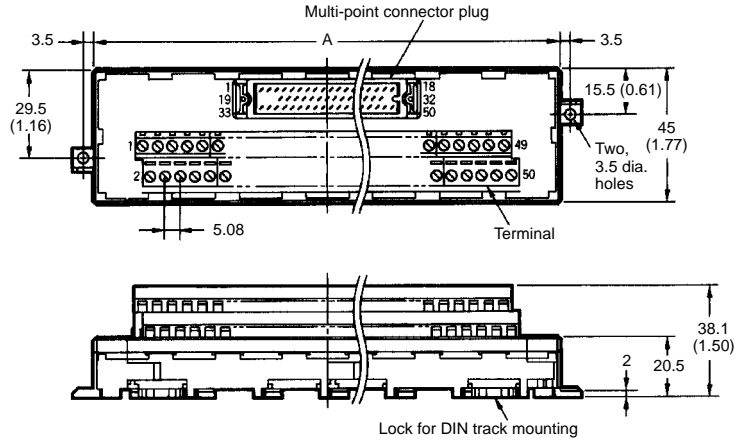
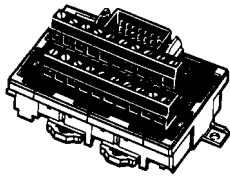
**Connection Diagram**



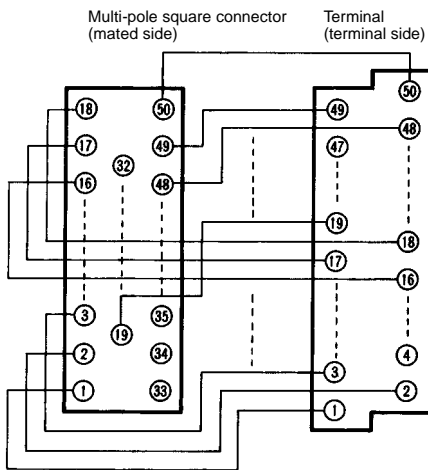
Refer to the connection diagrams when connecting the PLC through a dedicated XW2Z cable.

Unit: mm (inch)

XW2B-□□Y4



Connection Diagram (with 50 Poles)

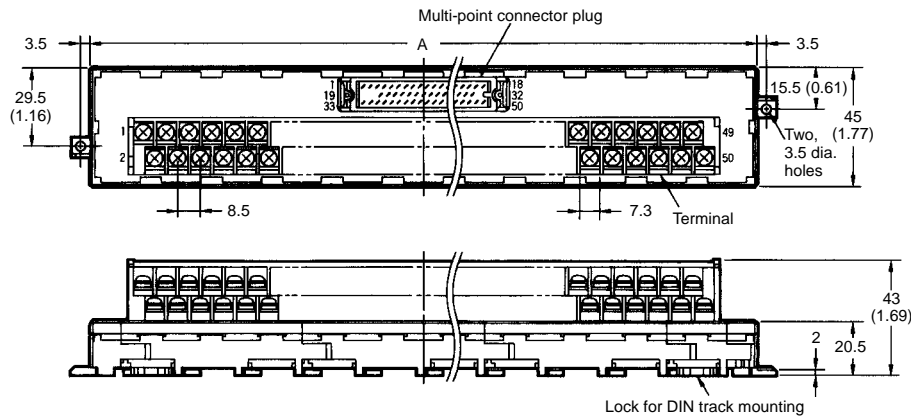
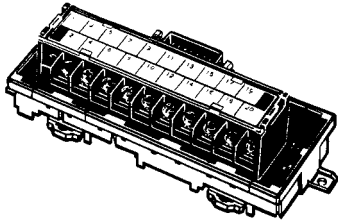


Model	No. of contacts	Length of A	Connector (See Note 1)
XW2B-20Y4	20	67.5 (2.66)	MR-20RMD2
XW2B-34Y4	34	112.5 (4.43)	MR-34RMD2
XW2B-50Y4	50	157.5 (6.20)	MR-50RMD2

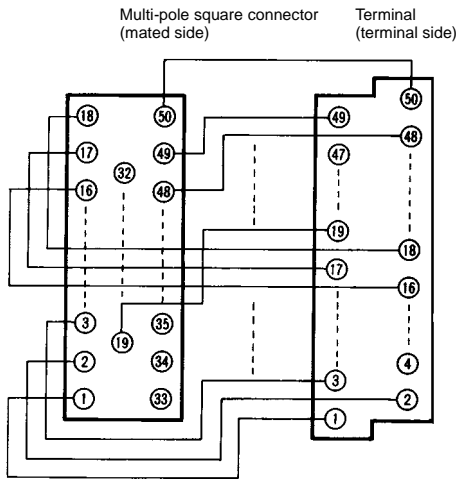
- Note: 1. The connectors are made by Honda Tsushin Kogyo.  
 2. The contact pitch of the terminals is 5.08 mm (0.20 in). Use AWG22 to AWG16 wire, which is 0.3 to 1.25 mm thick. The size of the wire inlet is 2.5 x 1.8 (W x H) mm.

Note: As shown in the above connection diagram, each terminal of the multi-pole square connector is wired to the corresponding terminal of the terminal block.

XW2B-□□Y5



Connection Diagram (with 50 Poles)



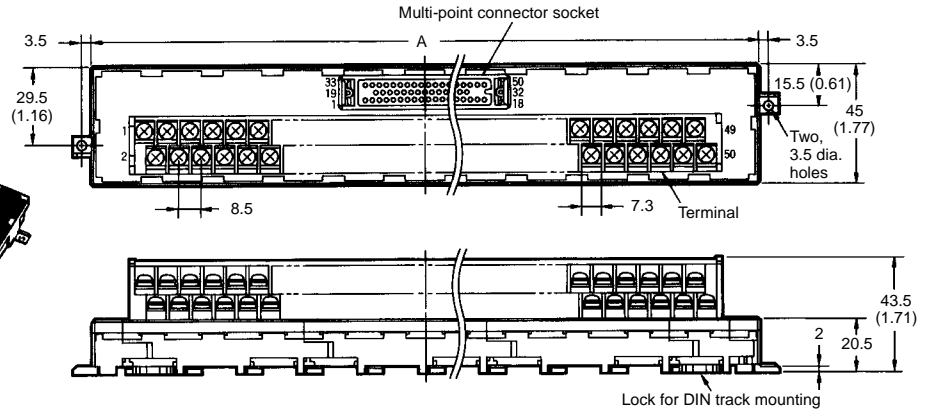
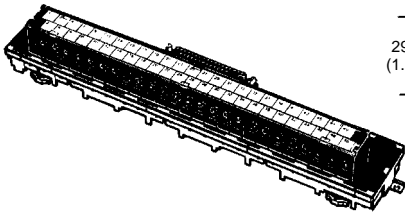
Model	No. of contacts	Length of A	Connector (See Note 1)
XW2B-20Y5	20	112.5 (4.43)	MR-20RMD2
XW2B-34Y5	34	180.0 (7.09)	MR-34RMD2
XW2B-50Y5	50	247.5 (9.74)	MR-50RMD2

- Note: 1. The connectors are made by Honda Tsushin Kogyo.  
 2. The contact pitch of the terminals is 8.5 mm (0.33 in).

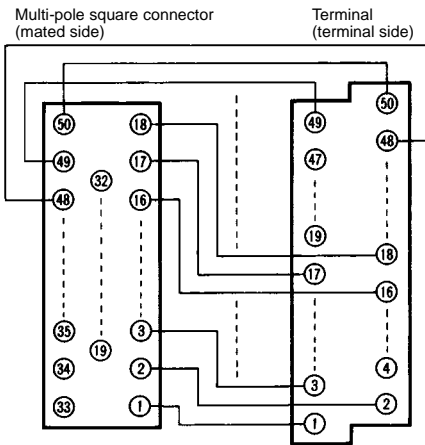
Note: As shown in the above connection diagram, each terminal of the multi-pole square connector is wired to the corresponding terminal of the terminal block.

Unit: mm (inch)

XW2B-□□X5



Connection Diagram (with 50 Poles)

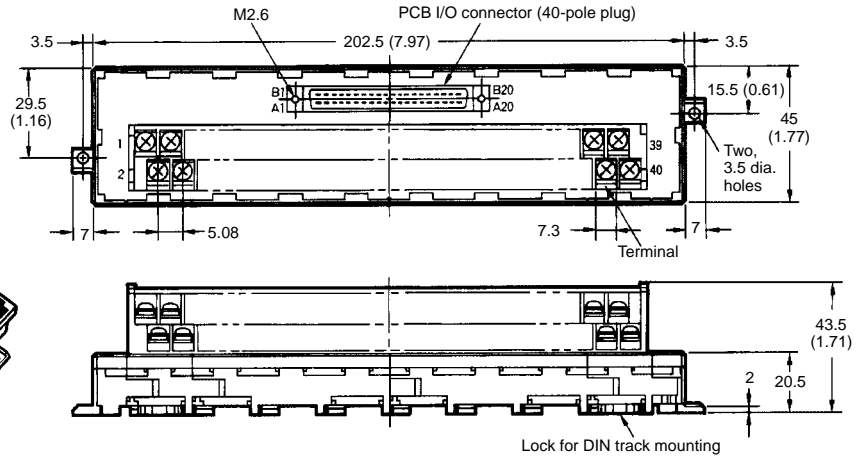
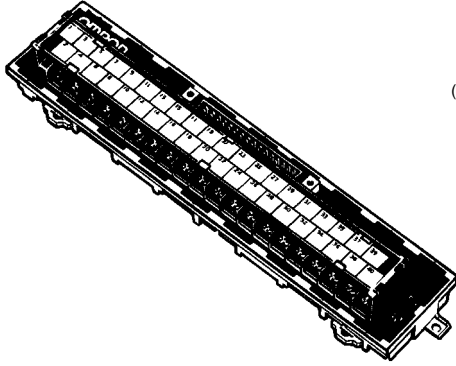


Model	No. of contacts	Length of A	Connector (See Note 1)
XW2B-20X5	20	112.5 (4.43)	MR-20RFD2
XW2B-34X5	34	180.0 (7.09)	MR-34RFD2
XW2B-50X5	50	247.5 (9.74)	MR-50RFD2

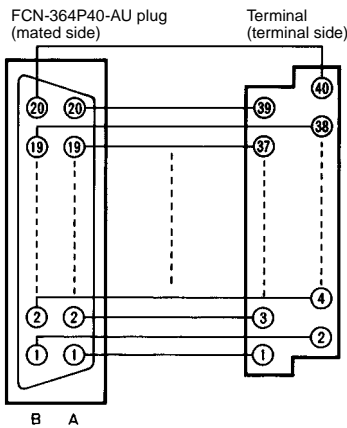
- Note: 1. The connectors are made by Honda Tsushin Kogyo.  
 2. The contact pitch of the terminals is 8.5 mm (0.33 in).

Note: As shown in the above connection diagram, each terminal of the multi-pole square connector is wired to the corresponding terminal of the terminal block.

XW2B-40F5-P



Connection Diagram



Model	No. of contacts	Connector (See Note 1)
XW2B-40F5-P	40	FCN-364P40-AU (connector) FCN-360A1 (fixing bracket)

Note: 1. The connectors are made by Fujitsu.  
2. The contact pitch of the terminals is 5.08 mm (0.20 in).

Precautions

■ WIRING

Do not wire the Terminal Block while power is supplied, or the terminals may be short-circuited with the cable, and the Unit may malfunction.

Do not connect or disconnect the connector while power is supplied to the Terminal Block, or the Unit may malfunction.

■ TERMINAL WIRE CONNECTIONS

Follow the instructions below to connect the wires directly to the Terminal Blocks:

For M3 screw terminals, use bare wire or tinned wire stubs, or use the crimp terminals shown below:

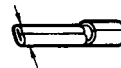
1. The diameter of each wire must be AWG22 to AWG16 (0.3 to 1.25 mm<sup>2</sup>).
2. Prepare the tip of each wire as follows:



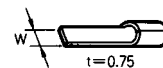
3. The wire insertion mouth of the M3 screw terminals is 1.8 H x 2.5 W mm.

For M3 screw terminals, use these crimp terminals:

Round Rod Type



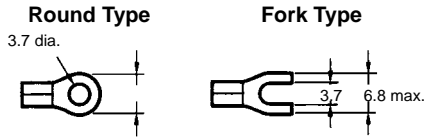
Blade Type



Applicable crimp terminal		Applicable wire
Round rod type	TC-05 φ = 1 mm	AWG22-18 (0.30 to 0.75 mm <sup>2</sup> )
	TC-1.25S φ = 1.5 mm	AWG22-16 (0.30 to 1.25 mm <sup>2</sup> )
Blade type	BT1.25-9-1 BT1.25-10-1 W = 2.2 mm	AWG22-16 (0.30 to 1.25 mm <sup>2</sup> )

Note: The crimp terminals of round and blade types are made by Nichifu.

For M3.5 screw terminals, use the following crimp terminals or bare or tinned wire stubs:



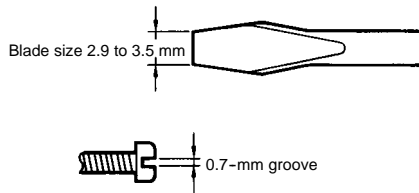
Applicable crimp terminal		Applicable wire
Round type	1.25-3.5	AWG22-16 (0.30 to 1.25 mm <sup>2</sup> )
	2-3.5	AWG16-14 (1.25 to 2.0 mm <sup>2</sup> )
Fork type	1.25Y-3.5	AWG22-16 (0.30 to 1.25 mm <sup>2</sup> )
	2Y-3.5	AWG16-14 (1.25 to 2.0 mm <sup>2</sup> )

### Terminal Screw Tightening Torque

When the wires with or without crimp terminals are connected to the terminal, apply the following tightening torque to the terminal screw.

Terminal	Tightening torque
M3 screw	4 kgf • cm (0.40 N • m)
M3.5 screw	6 kgf • cm (0.59 N • m)

Apply the following flat-blade screwdriver to the M3 terminal blocks.

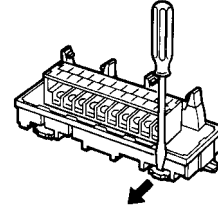


### TRACK MOUNTING

More than one XW2B Screw Terminal Block can be densely mounted to a DIN track. The mounting stays on both sides of the XW2B can be moved to the bottom side of the XW2B.

Secure both ends of the XW2B with end plates.

When removing the XW2B from the DIN track, apply a flat-blade screwdriver to the sliding part, unlock the XW2B, and pull the XW2B as shown in the following.



**NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.**

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