Standard-type Connector-Terminal Block Conversion Units

XW2B

CSM_XW2B_DS_E_4_1

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

Туре	Terminal Block	Connector	No. of poles	Appearance	Model
			20		XW2B-20G4
			34		XW2B-34G4
	Terminal block with M3 screws		40		XW2B-40G4
	WIO SOICWS		50		XW2B-50G4
EL . O . I			60		XW2B-60G4
Flat Cable			20		XW2B-20G5
			34		XW2B-34G5
	Terminal block with M3.5 screws	Flat Cable Connectors	40		XW2B-40G5
	WIS.S SCIEWS	*1	50		XW2B-50G5
			60		XW2B-60G5
Twin-connector	Terminal block with		40		XW2B-40G5-T
Daisy Chain	M3.5 screws		20		XW2B-20G5-D
			20		XW2B-20Y4
	Terminal block with M3 screws		34		XW2B-34Y4
	WO SOICWS	Multi-pole, Square Connector	50		XW2B-50Y4
		Plugs *2	20	<i>A</i> ~	XW2B-20Y5
Multi-pole, Square Connector		_	34		XW2B-34Y5
	Terminal block with		50		XW2B-50Y5
	M3.5 screws	Multi-pole, Square Connector	20		XW2B-20X5
		Plugs	34		XW2B-34X5
		*2	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.

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.

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

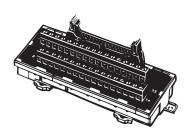
^{*3.} These Plugs are made by Fujitsu component.

Ratings and Specifications

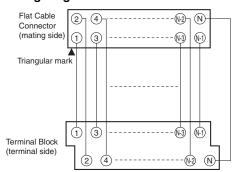
Type Item	XW2B-□□G□ Flat Cable Units	XW2B-□□Y□ Multi-pole, Square-connector Units	XW2B-40F5-P Board I/O Unit
Rated current	1 A		
Rated voltage	125 VAC		
Insulation resistance	100 MΩ min. (at 500 VDC)		
Dielectric strength	500 VAC for 1 min (leakage current: 1 mA max.)		
Ambient operating temperature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

Dimensions (Unit: mm)

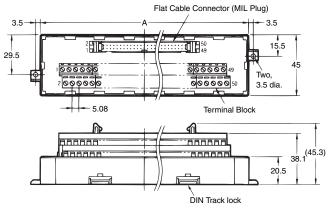
Flat Cable Units with a Terminal Block with M3 Screws



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.

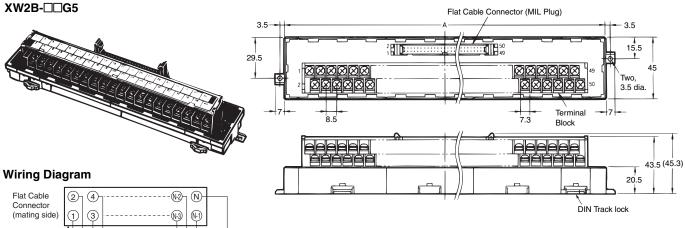
Use a wire size between 0.3 and 1.25 mm² (AWG22 to AWG16).

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

	Applicable Connectors (order separately)				
Model	Flat Cable Connectors, MIL Sockets with	Discrete-wire IDC Connectors, Double-row Sockets			
	Strain Reliefs	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-\(\sigma\)32-N or the XG5M-\(\sigma\)35-N may be used. *2. Each Connector requires two Semi-covers.

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



Triangular mark

Terminal Block (terminal side)

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

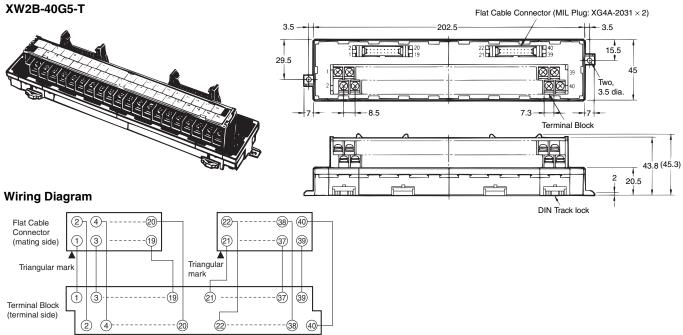
*Flat Cable Connectors have one polarity slot.

Note: Terminal block pitch is 8.5 mm.

	Applicable Connectors (order separately)			
Model	Flat Cable Connectors, MIL Sockets with	Discrete-wire IDC Connectors, Double-row Sockets		
	Strain Reliefs	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

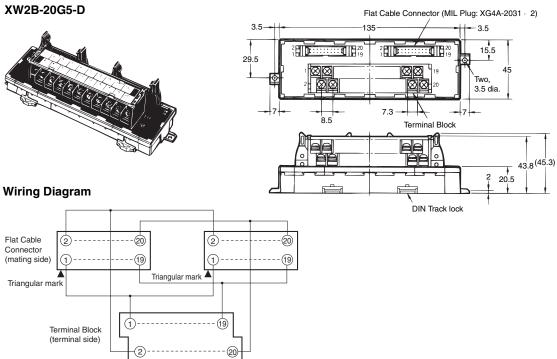


Note: All pins on the Flat Cable Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

	Applicable Connectors (order separately)			
Model	Flat Cable Connectors, MIL Sockets with	Discrete-wire IDC Connectors, Double-row Sock		
	Strain Reliefs	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



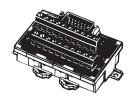
Note: All pins on the Flat Cable Connector correspond 1-to-1 to the terminal of the same number on the terminal block as shown above.

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

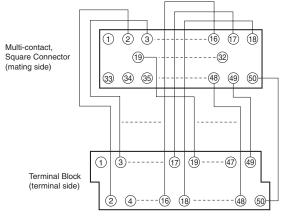
^{*1.} Either the XG5M-_\32-N or the XG5M-\\35-N may be used. *2. Each Connector requires two Semi-covers.

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

XW2B-□□Y4

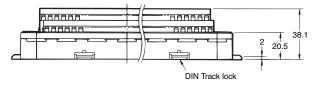


Wiring Diagram (Example for Terminal **Block with 50 Poles)**



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.

Multi-contact Connector (Plug) 000000 00000 3.5 dia Terminal Block 5.08



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).

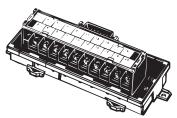
The wire insertion holes are 1.8 \times 2.5 (H \times W) mm.

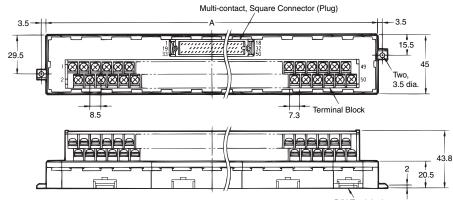
Model	Applicable Connectors *1	Hood *1
XW2B-20Y4	MR-20F (soldered) MRP-20F01 (crimped) *2 MR-20FW (wrapped)	MR-20L
XW2B-34Y4	MR-34F (soldered) MRP-34F01 (crimped) *2 MR-34FW (wrapped)	MR-34L
XW2B-50Y4	MR-50F (soldered) MRP-50F01 (crimped) *2 MR-50FW (wrapped)	MR-50L

^{*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.

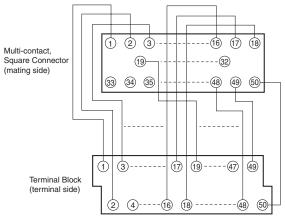
Multi-pole, Square-connector Plug Units with a Terminal Block with M3.5 Screws

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

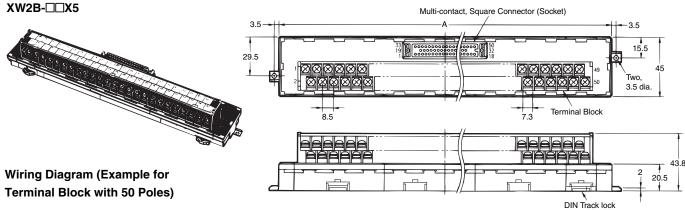
Model	No. of poles	Dimension A (mm)	Applicable Connector models *
XW2B-20Y5	20	112.5	MR-20RMD2
XW2B-34Y5	34	180.0	MR-34RMD2
XW2B-50Y5	50	247.5	MR-50RMD2

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

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-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



49 (34) (35)-----(48) (50) Multi-contact, Square Connector (mating side) (17) (18) 1 3 Terminal Block (terminal side) 16) 18 48

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.

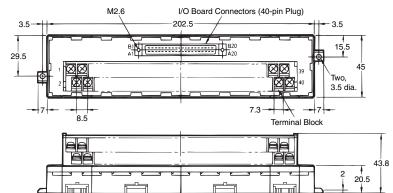
Note: All pins on the Multi-pole, Square Connector correspond 1to-1 to the terminal of the same number on the terminal block as shown above.

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

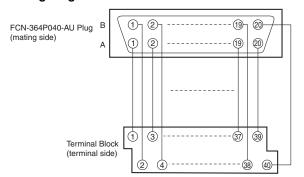
^{*1.} All applicable Connector Hoods are made by Honda Tsushin Kogyo.
*2. Use MRP-F113 or MRP-F103 crimp terminals made by Honda Tsushin Kogyo.

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)

DIN Track lock

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

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

^{*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

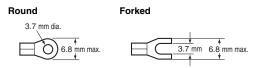
- Always turn OFF the power supply before wiring.
 Otherwise, cables or other conductors can short the terminals and cause the Unit to fail.
- Do not connect or disconnect Connectors with the power turned ON. Otherwise, it may cause malfunctions.

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).
 - Prepare the end of each wire as shown in the following diagram.



- 3. The wire insertion holes are 1.8 \times 2.5 (H \times W) mm on the terminal block with M3 screws.
- Direct Wire Connections with a Terminal Block with M3.5 Screws



Applicable crimp terminals		Applicable wires
Round	1.25-3.5	AWG22 to AWG16 (0.30 to 1.25 mm ²)
Hourid	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)
Forked	2Y-3.5	AWG16 to AWG14 (1.25 to 2.0 mm²)

(With a Terminal Block with M3 Screws)

Blade

Round rod





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 mm²)

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

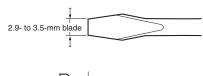
● Terminal Screw Tightening Torque

• 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

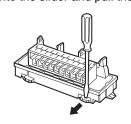
Mounting Units to and Removing Units from DIN Track

• For terminal blocks with M3 screws, use a flat-heat 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.



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