

OMRON

# Connecting to Controllers..

Simple

Slim

Variety

## ...Is Now Even Smarter

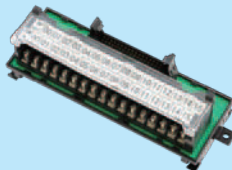
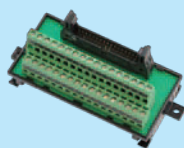
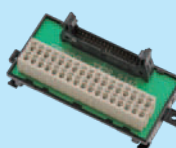
Connector-Terminal Block Conversion Units

### XW2R Series

# New Series XW2R

## Product Lineup



Type		PLCs		
Features		Specialized wiring pattern for PLC	Minimized size with required number of poles	
Connection on process side		Phillips screw	Slotted screw (rise up)	Push-in spring
Model	For OMRON PLC	XW2R-J34G-C□	XW2R-E34G-C□	XW2R-P34G-C□
	For Mitsubishi PLC	XW2R-J34G-M□	XW2R-E34G-M□	XW2R-P34G-M□
Appearance				

## Smart Features

### PLC Connecting type

- Wiring patterns that are specifically designed for PLCs reduce the work required to check signal layout.
- Terminal block signal labels give the PLC addresses.

#### General-purpose devices

B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17

#### For PLCs from OMRON

NC	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	1	0	1	1	2	1	3	1	4	1	5	
COM	0	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	1	0	1	1	2	1	3	1	4	1	5

#### For PLCs from Mitsubishi

1	0	1	1	2	1	3	1	4	1	5	1	6	1	7	1	8	1	9	1	A	1	B	1	C	1	D	1	E	1	F	COM	
0	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	A	0	B	0	C	0	D	0	E	0	F	NC

### General-purpose devices

- More model variations are scheduled for future development, such as models with MR, or MDR connectors in addition to the current models with MIL, FCN connectors.

Specialized wiring pattern for OMRON PLCs and Mitsubishi PLCs

## General-purpose devices

Wide variation of poles

Minimized size with required number of poles

Phillips screw

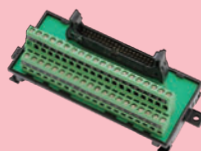
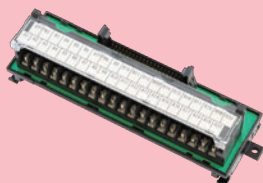
Slotted screw (rise up)

Push-in spring

XW2R-J□□□□-T□

XW2R-E□□□□-T□

XW2R-P□□□□-T□



Wide variation of poles

To page 13 for details on models for general-purpose devices

To page 4 for details on models for OMRON PLCs

To page 9 for details on models for Mitsubishi PLCs

## All Models

- Push-in terminals simplify wiring and make the Terminal Blocks even easier to use. (In comparison to the OMRON XW2F.)
- The terminal arrangement enables smoother wiring work.
- Mount to DIN Track or with screws.
- Common design that can also be customized.

- The ribs for screw mounting are positioned within the DIN Track so that they do not interfere with DIN Track mounting parts or End Plates. Even when connecting XW2R Units to each other, the ribs do not interfere so there is no gap between the Units.



# Models for Connection to OMRON PLCs

## Model List

X W 2 R - □ 3 4 G - □ □

Wiring method	
J	Phillips screw
E	Slotted screw (rise up)
P	Push-in spring

Mounted Connector type	
G	MIL (XG4A)

PLC type	
C1	Refer to the following table for details.
C2	
C3	
C4	

## Models for OMRON PLCs

PLC Type	I/O	I/O Points	I/O Unit Model	Connecting cables
C1	Input	32	CJ1W-ID231	XW2Z-□□□B 32-point Unit: 1 Cable 64-point Unit: 2 Cables
			CS1W-ID231	
			C200H-ID216	
			C200H-ID218	
			CQM1-ID112	
			CQM1-ID213	
			CQM1-ID214	
		64	CJ1W-ID261	
			CS1W-ID261	
			C200H-ID217	
			C200H-ID219	
			C200H-ID111	
			C500-ID114	
			C500-ID219	
	I/O	32	CJ1W-MD261 (inputs)	
			CS1W-MD261 (inputs)	
			CS1W-MD262 (inputs)	
			CS1W-MD561 (inputs)	
C2	Input	32	CJ1W-ID232	XW2Z-□□□K 32-point Unit: 1 Cable 64-point Unit: 2 Cables
		64	CJ1W-ID233	
			CJ1W-ID262	
	I/O	32	CJ1W-MD263 (inputs)	
			CJ1W-MD563 (inputs)	
C3	Output	32	CJ1W-OD231	XW2Z-□□□B 32-point Unit: 1 Cable 64-point Unit: 2 Cables
			CS1W-OD231	
			CS1W-OD232	
			C200H-OD218	
			CQM1-OD213	
		64	CJ1W-OD261	
			CS1W-OD261	
			CS1W-OD262	
			C200H-OD219	
			C500-OD213	
	I/O	32	CJ1W-MD261 (outputs)	
			CS1W-MD261 (outputs)	
			CS1W-MD262 (outputs)	
			CS1W-MD561 (outputs)	
C4	Output	32	CJ1W-OD232	XW2Z-□□□K 32-point Unit: 1 Cable 64-point Unit: 2 Cables
		64	CJ1W-OD233	
			CJ1W-OD234	
			CJ1W-OD262	
			CJ1W-OD263	
	I/O	32	CJ1W-MD263 (outputs)	
			CJ1W-MD563 (outputs)	

\*Connection is not possible to all OMRON PLC Units.

\*□□□ is replaced by the cable length.

\*There is one common for each 32 points.

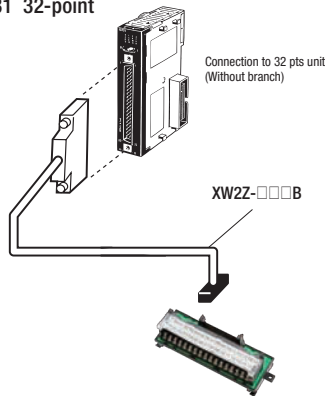
\*Refer to page 16-17 for information on Connecting Cables.



## Connection Examples

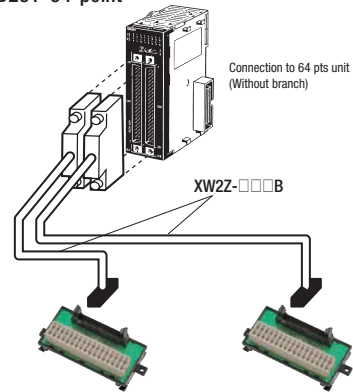
### 32-point Input Unit or Output Unit

CJ1W-ID231 32-point



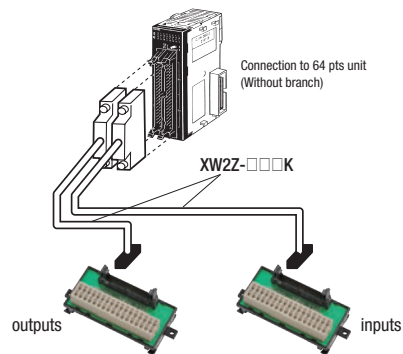
### 64-point Input Unit or Output Unit

CJ1W-ID261 64-point




### 64-point Output Unit

CJ1W-MD563 IN 32 Points, OUT 32 Points



# Models for Connection to OMRON PLCs

## Phillips screw

Appearance	I/O Points (number of poles)	Model	Dimension A(mm)	Dimension B(mm)
	32 (34)	XW2R-J34G-C1	130.7	140.2
	32 (34)	XW2R-J34G-C2	130.7	140.2
	32 (34)	XW2R-J34G-C3	130.7	140.2
	32 (34)	XW2R-J34G-C4	130.7	140.2

## Ratings and Specifications

Rated current	0.5A/signal, 4A/common
Rated voltage	24VDC
Insulation resistance	100M $\Omega$ min. (at 500VDC)
Dielectric strength	500VAC for 1 min (leakage current: 1 mA max.)
Ambient operating temperature	0 to 55
Applicable wires	Applicable wire sizes
	AWG 22 to 16 (round or forked crimp terminals)
	AWG 26 to 16 (twisted or solid wires)
	Stripped length
	9 mm
	Tightening
	0.5 N·m

## Details on Crimp Terminals

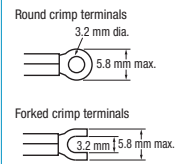
### ● Wiring Terminal Blocks

Using Crimp Terminals(With a Terminal Block with M3 Screws)

### ● Terminal Screw Tightening Torque

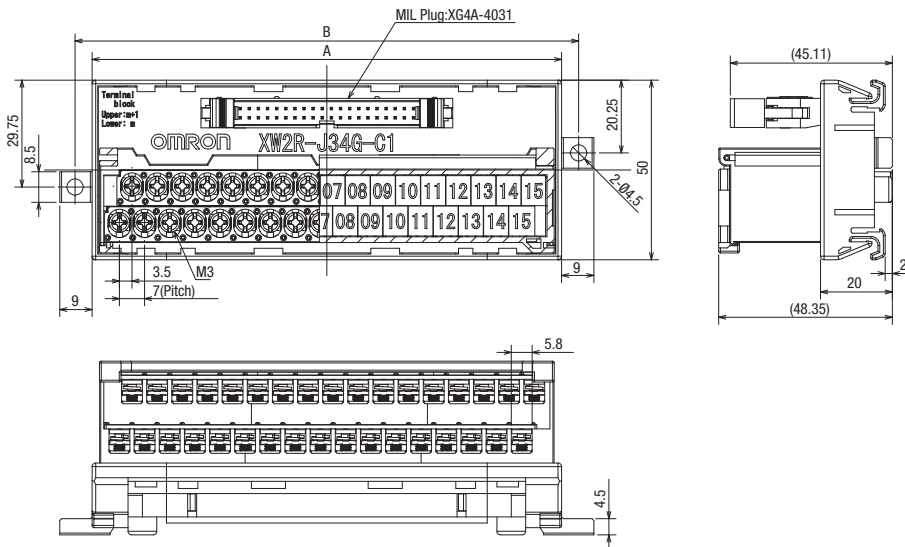
Use a tightening torque of 0.5 N·m when connecting wires or crimp terminals to the terminal block.

Applicable crimp terminals	Applicable wires
Round crimp terminals	1.25-3 AWG 22 to 16(0.30 to 1.25 mm <sup>2</sup> )
Forked crimp terminals	1.25V-3 AWG 22 to 16(0.30 to 1.25 mm <sup>2</sup> )

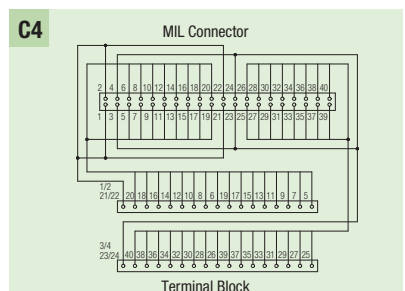
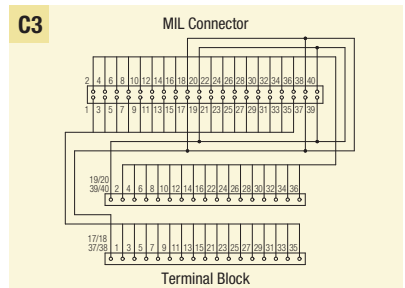
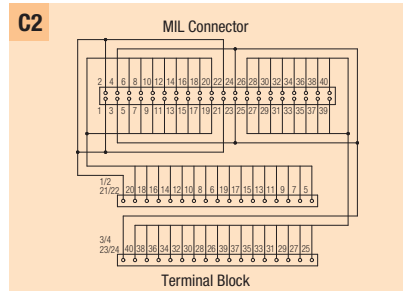
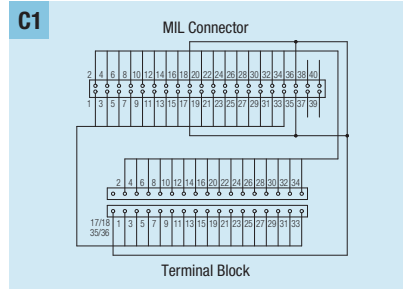


## Dimensions

(Unit: mm)



## Wiring Diagram



## Label Contents

### For C1 and C2


NC	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
COM	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

### For C3 and C4

+V	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
0V	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

# Models for Connection to OMRON PLCs

## Slotted screw (rise up)

Appearance	I/O Points (number of poles)	Model	Dimension A(mm)	Dimension B(mm)
	32 (34)	XW2R-E34G-C1	98.5	108
	32 (34)	XW2R-E34G-C2	98.5	108
	32 (34)	XW2R-E34G-C3	98.5	108
	32 (34)	XW2R-E34G-C4	98.5	108

## Ratings and Specifications

Rated current	0.5A/signal, 4A/common
Rated voltage	24VDC
Insulation resistance	100MΩ min. (at 500VDC)
Dielectric strength	500VAC for 1 min (leakage current: 1 mA max.)
Ambient operating temperature	0 to 55
Applicable wires	Applicable wire sizes
	AWG 22 to 16 (rod terminals) AWG 26 to 16 (twisted or solid wires)
	Stripped length
	7 mm
	Tightening
	0.5 to 0.6 N·m

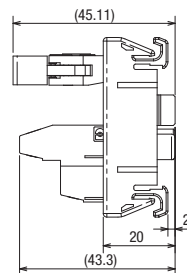
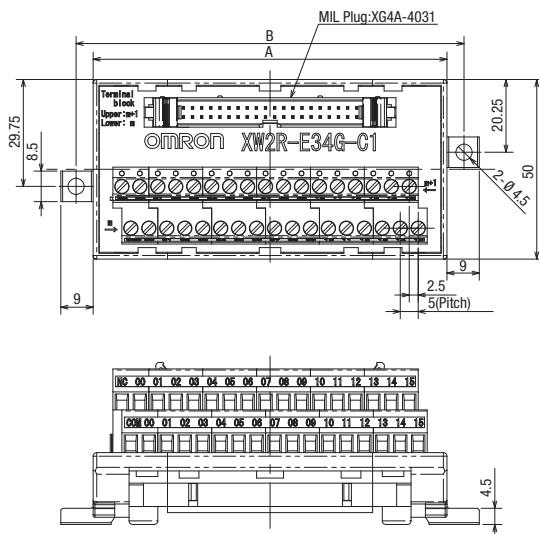
## Details on Crimp Terminals

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

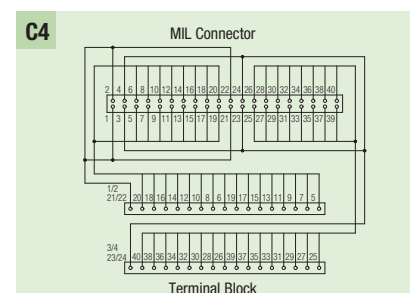
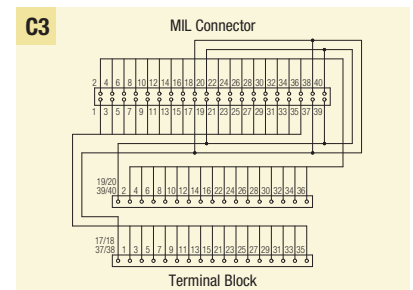
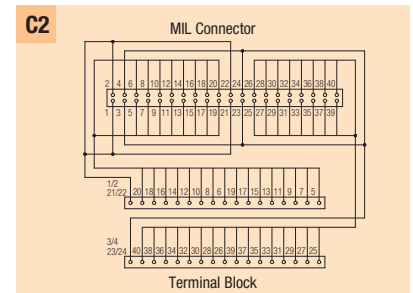
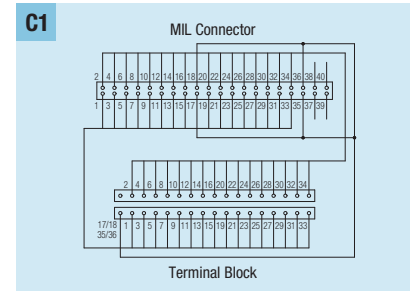
Note: Round rod and blade crimp terminals are made by Nichifu.

## Dimensions

(Unit:mm)



## Wiring Diagram



## Label Contents

### For C1 and C2


NC 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
COM 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

### For C3 and C4

+V 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15  
0V 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15

# Models for Connection to OMRON PLCs

## Push-in spring

Appearance	I/O Points (number of poles)	Model	Dimension A(mm)	Dimension B(mm)
	32 (34)	XW2R-P34G-C1	98.5	108
	32 (34)	XW2R-P34G-C2	98.5	108
	32 (34)	XW2R-P34G-C3	98.5	108
	32 (34)	XW2R-P34G-C4	98.5	108

## Ratings and Specifications

Rated current	0.5A/signal, 4A/common
Rated voltage	24VDC
Insulation resistance	100MΩ min. (at 500VDC)
Dielectric strength	500VAC for 1 min
Ambient operating temperature	0 to 55
Applicable wires	AWG 24 to 14 (rod terminals), AWG 28 to 14 (twisted or solid wires) (Outer diameter of insulation must be 4 mm max)
	Stripped length AWG28-16: 8 to 10 mm, AWG14: 9 to 10 mm

## Details on Crimp Terminals

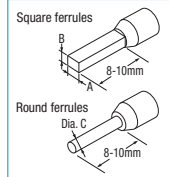
### ● Applicable Ferrules

- Use ferrules of the lengths and thicknesses specified below. If other lengths or thicknesses are used, connection may not be possible or it may not be possible to insert or remove the posts.

### • Ferrule Dimensions

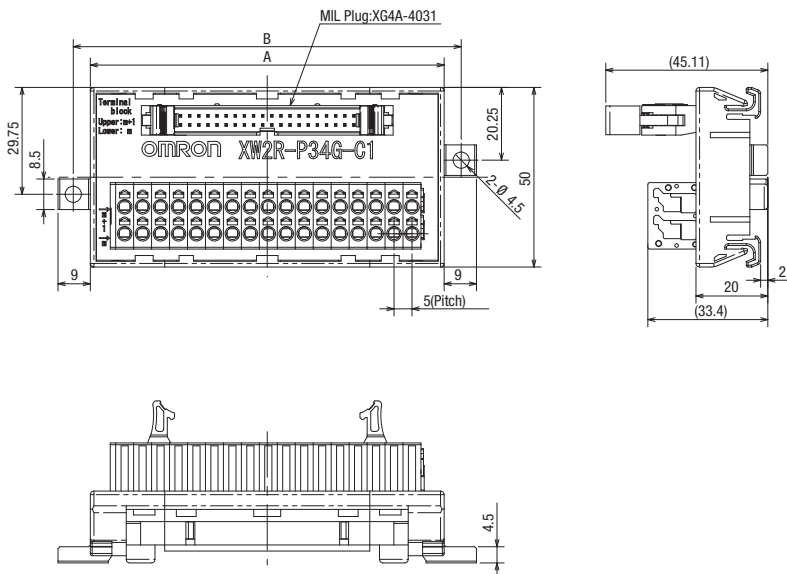
Square ferrules	Dimension A (Width)	2.7mm max.	The cross-sectional area after crimping must be 4.8 mm <sup>2</sup> or less
	Dimension B (Height)	2 mm max.	
Round ferrules	Dimension C (Diameter)	2 mm dia. max. (after crimping)	

Refer to page 19 for information on Square/Round rods terminal and use tool.

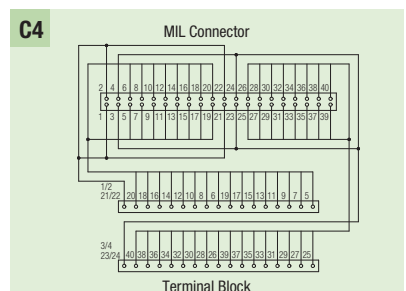
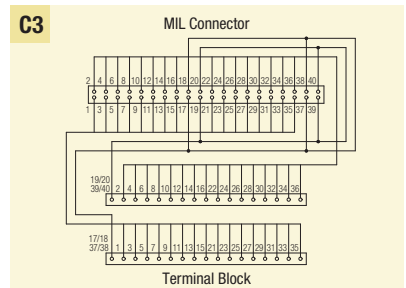
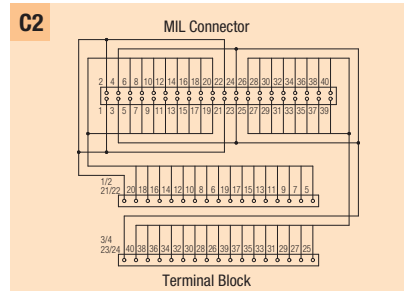
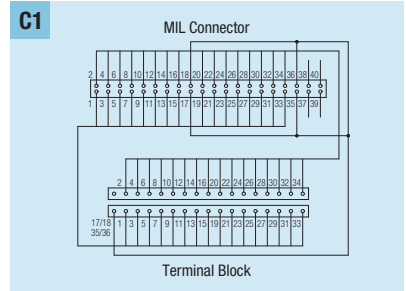


## Dimensions

(Unit: mm)



## Wiring Diagram



## Label Contents

### For C1 and C2

m	+	1	NC	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	1	0	1	1	2	1	3	1	4	1	5
m	+	1	COM	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	1	0	1	1	2	1	3	1	4	1	5

### For C3 and C4

m	+	1	+V	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	1	0	1	1	2	1	3	1	4	1	5
m	+	1	0V	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	1	0	1	1	2	1	3	1	4	1	5

# Models for Connection to Mitsubishi PLCs

## Model List

**X W 2 R - □ 3 4 G - □ □**

Wiring method	
<b>J</b>	Phillips screw
<b>E</b>	Slotted screw (rise up)
<b>P</b>	Push-in spring

Mounted Connector type	
<b>G</b>	MIL (XG4A)

PLC type	
<b>M1</b>	Refer to the following table for details.
<b>M2</b>	

## Models for Connection to Mitsubishi PLCs


PLC Type	I/O Points	Mitsubishi PLC Module model	Connecting cables
<b>M1</b>	32	LX41C4	XW2Z-□□□B: 1 cable
		QX41	
		QX41-S1	
		QX41-S2	
		QX71	
		QH42P (input)	
		QX41Y41P (input)	
		A1SX41-S1	
		A1SX41-S2	
		A1SX71	
		A1SH42 (input)	
		A1SH42-S1 (input)	
	64	LX42C4	XW2Z-□□□B: 2 cables
		QX42	
		QX42-S1	
		QX82	
		QX82-S1	
		A1SX42-S1	
		A1SX42-S2	
		A1SX82-S	
<b>M2</b>	32	LY41NT1P	XW2Z-□□□B: 1 cable
		QY41P	
		QY71	
		QH42P (output)	
		QY41Y41P (output)	
		A1SY41-S1	
		A1SY41P	
		A1SY42P	
		A1SY71	
	64	A1SH42 (output)	XW2Z-□□□B: 2 cables
		A1SH42-S1 (output)	
		LY42NT1P	
		QY42P	
		A1SY42	

\*□□□ is replaced by the cable length.

\*Refer to page 16 for information on Connecting Cables.

# Models for Connection to Mitsubishi PLCs

## Phillips screw

Appearance	I/O Points (number of poles)	Model	Dimension A(mm)	Dimension B(mm)
	32 (34)	XW2R-J34G-M1	130.7	140.2
	32 (34)	XW2R-J34G-M2	130.7	140.2

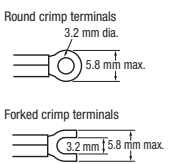
## Ratings and Specifications

Rated current		0.5A/signal,2A/common
Rated voltage		24VDC
Insuration resistance		100MΩ min.(at 500VDC)
Dielectric strength		500VAC for 1 min (leakage current: 1 mA max.)
Ambient operating temperature		0 to 55
Applicable wires	Applicable wire sizes	AWG 22 to 16 (round or forked crimp terminals) AWG 26 to 16 (twisted or solid wires)
	Stripped length	9 mm
	Tightening	0.5 N·m

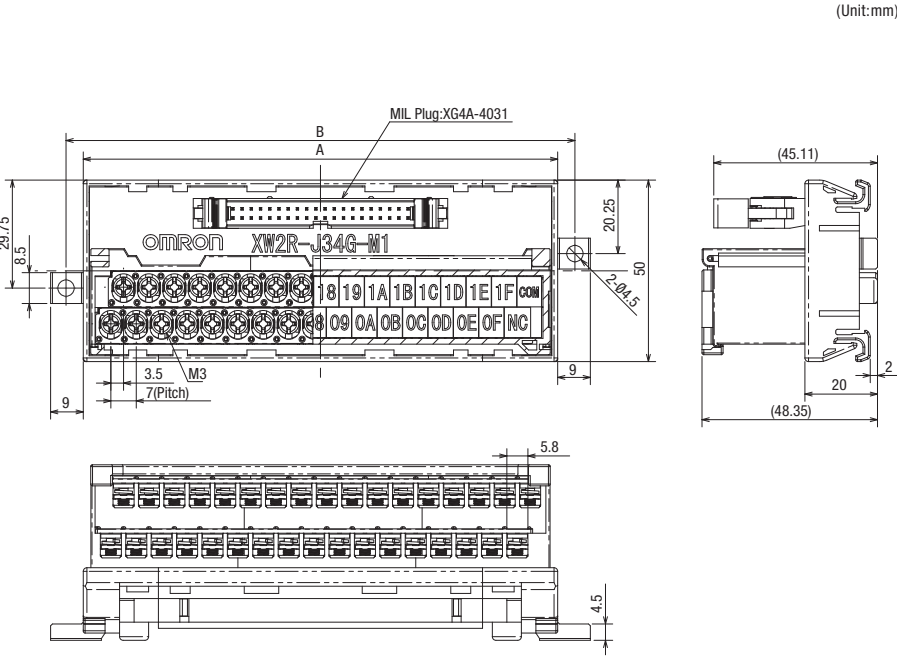
## Details on Crimp Terminals

- **Wiring Terminal Blocks**  
Using Crimp Terminals (With a Terminal Block with M3 Screws)
- **Terminal Screw Tightening Torque**  
Use a tightening torque of 0.5 N·m when connecting wires or crimp terminals to the terminal block.

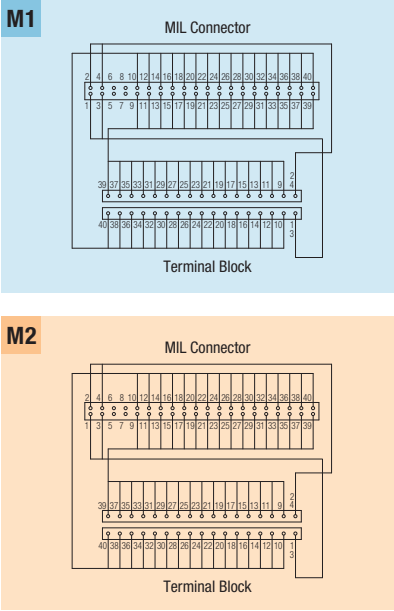
Applicable crimp terminals	Applicable wires
Round crimp terminals	1.25-3 AWG 22 to 16(0.30 to 1.25 mm <sup>2</sup> )
Forked crimp terminals	1.25Y-3 AWG 22 to 16(0.30 to 1.25 mm <sup>2</sup> )



## Dimensions



## Wiring Diagram



## Label Contents

For **M1**

1	0	1	1	2	3	4	5	6	7	8	9	A	B	1	C	1	D	1	E	1	F	COM									
0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	A	0	B	0	C	0	D	0	E	0	F	NC


For **M2**

1	0	1	1	2	3	4	5	6	7	8	9	A	B	1	C	1	D	1	E	1	F	+	V									
0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0	A	0	B	0	C	0	D	0	E	0	F	0	V



# Models for Connection to Mitsubishi PLCs

## Slotted screw (rise up)

Appearance	I/O Points (number of poles)	Model	Dimension A(mm)	Dimension B(mm)
	32 (34)	XW2R-E34G-M1	98.5	108
	32 (34)	XW2R-E34G-M2	98.5	108

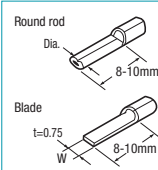
## Ratings and Specifications

Rated current	0.5A/signal, 2A/common
Rated voltage	24VDC
Insulation resistance	100MΩ min. (at 500VDC)
Dielectric strength	500VAC for 1 min (leakage current: 1 mA max.)
Ambient operating temperature	0 to 55
Applicable wires	Applicable wire sizes
	AWG 22 to 16 (rod terminals) AWG 26 to 16 (twisted or solid wires)
	Stripped length
	7 mm
	Tightening
	0.5 to 0.6 N·m

## Details on Crimp Terminals

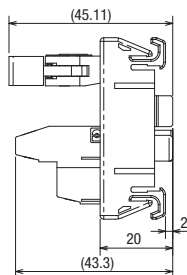
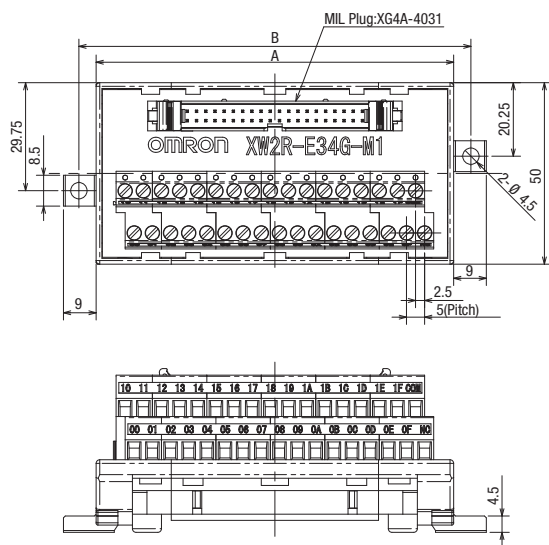
Applicable crimp terminals		Applicable wires
Rod	TC-05 Dia. = 1	AWG22 to AWG18 (0.30 to 0.75 mm <sup>2</sup> )
	TC-1.25S Dia. = 1.5	AWG22 to AWG16 (0.30 to 1.25 mm <sup>2</sup> )
Blade	BT1.25-9-1 BT1.25-10-1 W = 2.2	AWG22 to AWG16 (0.30 to 1.25 mm <sup>2</sup> )

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

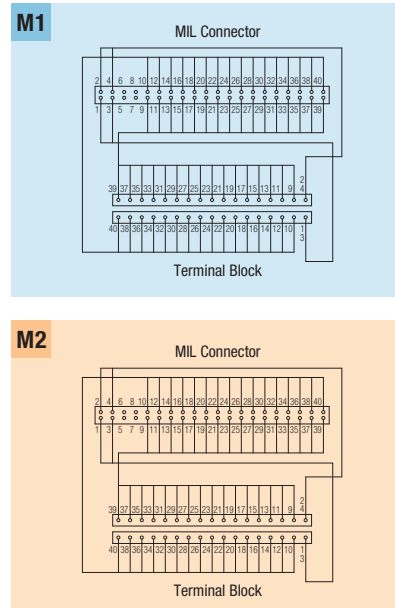


## Dimensions

(Unit:mm)



## Wiring Diagram



## Label Contents

### For M1


10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	COM
00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	NC

### For M2

10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	+V
00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	0V

# Models for Connection to Mitsubishi PLCs

## Push-in spring

Appearance	I/O Points (number of poles)	Model	Dimension A(mm)	Dimension B(mm)
	32 (34)	XW2R-P34G-M1	98.5	108
	32 (34)	XW2R-P34G-M2	98.5	108

### Ratings and Specifications

Rated current		0.5A/signal,2A/common
Rated voltage		24VDC
Insuration resistance		100MΩ min.(at 500VDC)
Dielectric strength		500VAC for 1 min
Ambient operating temperature		0 to 55
Applicable wires	Applicable wire sizes	AWG 24 to 14 (rod terminals),AWG 28 to 14 (twisted or solid wires)(Outer diameter of insulation must be 4 mm max)
	Stripped length	AWG28-16: 8 to 10 mm, AWG14: 9 to 10 mm

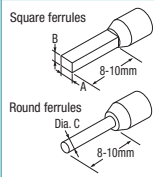
### Details on Crimp Terminals

#### ● Applicable Ferrules

- Use ferrules of the lengths and thicknesses specified below.If other lengths or thicknesses are used, connection maynot be possible or it may not be possible to insert or remove the posts.
- Ferrule Dimensions

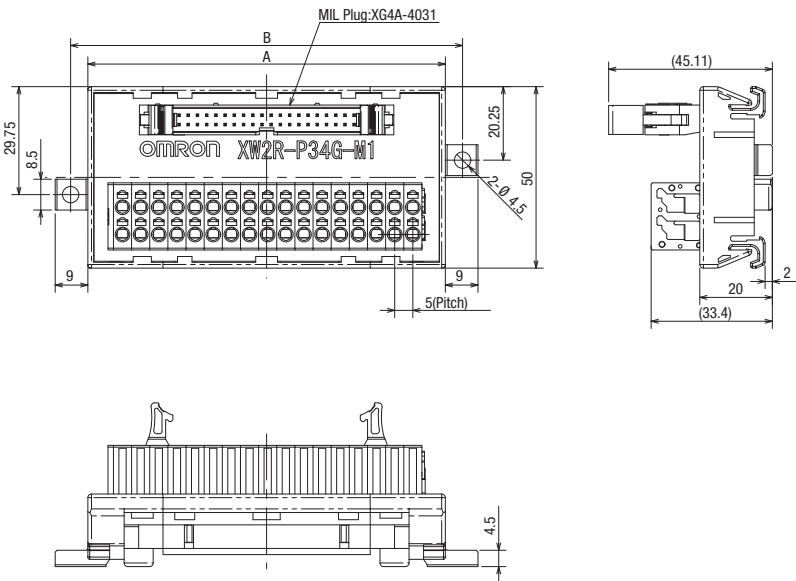
Square ferrules	Dimension A (Width)	2.7mm max.	The cross-sectional area after crimping must be 4.8 mm² or less
	Dimension B (Height)	2 mm max.	
Round ferrules	Dimension C (Diameter)	2 mm dia. max. (after crimping)	

Refer to page 19 for information on Square/Round rods terminal and use tool.

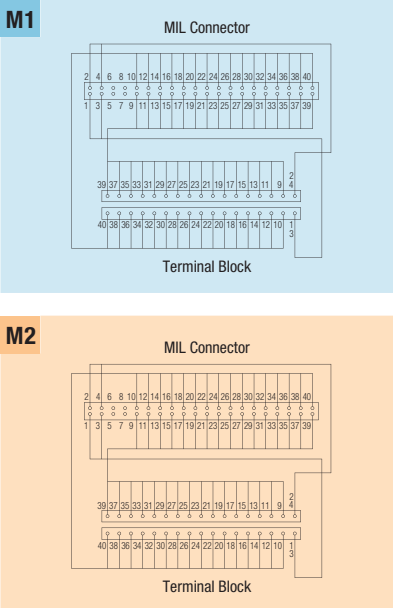


### Dimensions

(Unit:mm)



### Wiring Diagram



### Label Contents

For M1

10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	COM
00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	NC

For M2

10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	+V
00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	0V

## Model List

**XW2R - □ □ □ □ - T**

### Wiring method

<b>J</b>	Phillips screw
<b>E</b>	Slotted screw (rise up)
<b>P</b>	Push-in spring
<b>N</b>	e-CON*

### Number of poles

<b>20</b>
<b>34</b>
<b>40</b>
<b>50</b>
<b>60</b>

### Mounted Connector type


<b>G</b>	MIL (XG4A)
<b>F</b>	FCN
<b>C</b>	MIL (XG4C)*
<b>D</b>	D-sub*
<b>R</b>	MR*
<b>M</b>	MDR*

### Plug/Socket

<b>Blank</b>	Plug (male)
<b>R</b>	Socket (female)*

\*Scheduled for release soon.

## Phillips screw

Appearance*	Mounted Connector type	number of poles	Model	Dimension A (mm)	Dimension B (mm)	Dimension C (mm)
	MIL Connector	XG4A-2031	20	XW2R-J20G-T	81.7	91.2
		XG4A-3431	34	XW2R-J34G-T	130.7	140.2
		XG4A-4031	40	XW2R-J40G-T	151.7	161.2
		XG4A-5031	50	XW2R-J50G-T	186.7	196.2
		XG4A-6031	60	XW2R-J60G-T	221.7	231.2
	FCN Connector	FCN-364P040-AU	40	XW2R-J40F-T	151.7	161.2

\*Mounted connector of appearance is MIL connector.

## Ratings and Specifications

Rated current	1A
Rated voltage	125VAC 24VDC
Insulation resistance	100MΩ min.(at 500VDC)
Dielectric strength	500VAC for 1 min (leakage current: 1 mA max.)
Ambient operating temperature	0 to 55

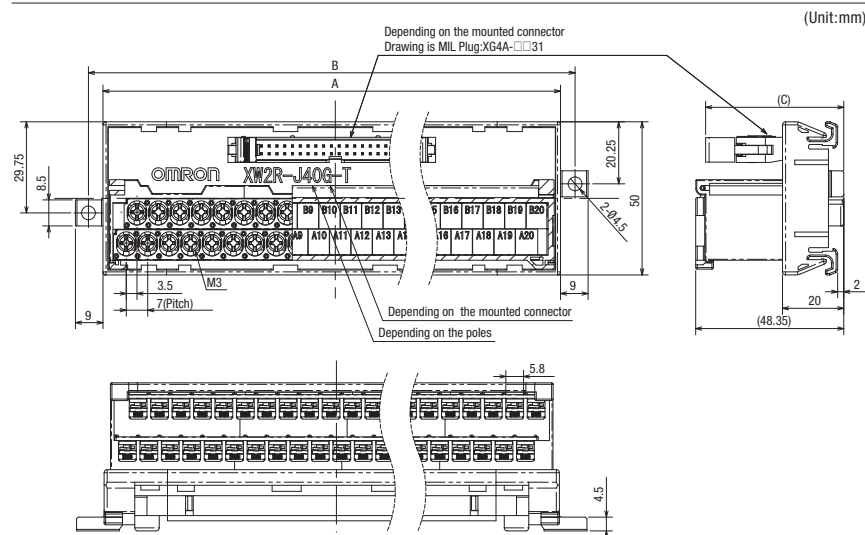
\*The details on crimp terminals are the same for the XW2R-J34G on page 6.

## Label Contents

B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17

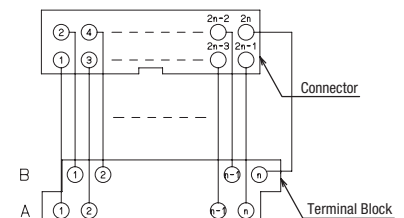
\*The label contents for a Terminal Block with 34 poles are shown.

## Dimensions

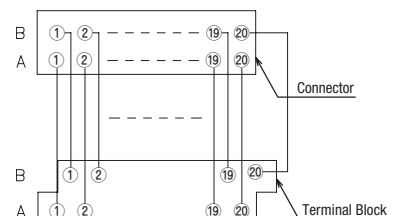


## Wiring Diagram


### Mounted Connector type: MIL Connector



### Mounted Connector type: FCN Connector



## Slotted screw (rise up)

Appearance*	Mounted Connector type		number of poles	Model	Dimension A (mm)	Dimension B (mm)	Dimension C (mm)
	MIL Connector	XG4A-2031	20	XW2R-E20G-T	64.4	73.9	45.11
		XG4A-3431	34	XW2R-E34G-T	98.5	108	45.11
		XG4A-4031	40	XW2R-E40G-T	113.5	123	45.11
		XG4A-5031	50	XW2R-E50G-T	138.5	148	45.11
		XG4A-6031	60	XW2R-E60G-T	163.5	173	45.11
	FCN Connector	FCN-364P040-AU	40	XW2R-E40F-T	113.5	123	28.4

\*Mounted connector of appearance is MIL connector.

## Ratings and Specifications

Rated current	1A
Rated voltage	125VAC 24VDC
Insulation resistance	100M $\Omega$ min.(at 500VDC)
Dielectric strength	500VAC for 1 min (leakage current: 1 mA max.)
Ambient operating temperature	0 to 55

\*The details on crimp terminals are the same for the XW2R-E34G on page 7.

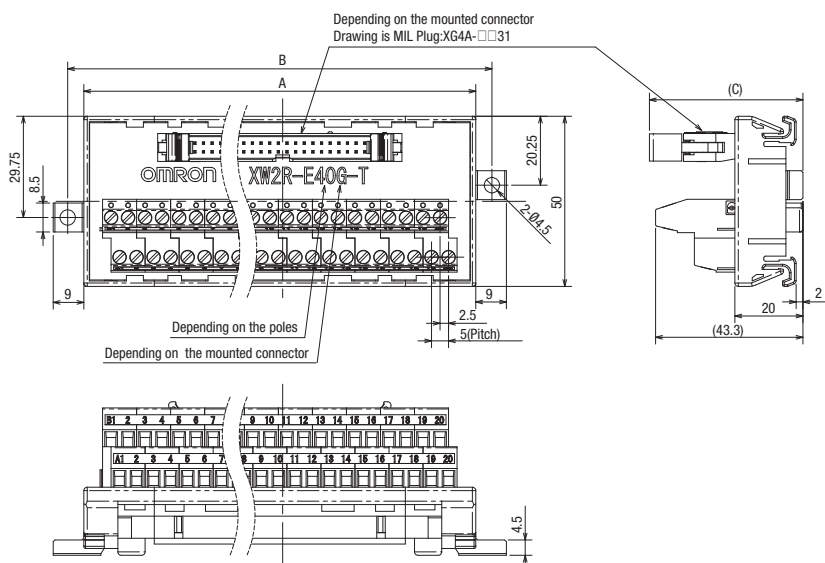
## Label Contents

B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

\*The label contents for a Terminal Block with 34 poles are shown.

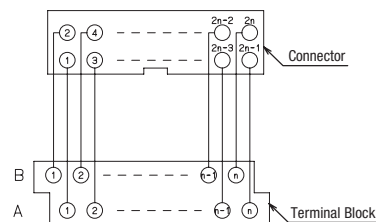
## Dimensions

(Unit:mm)

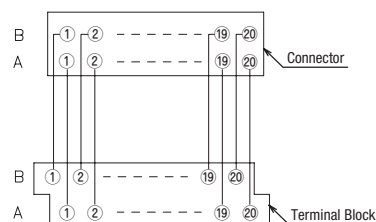


## Wiring Diagram


### Mounted Connector type: MIL Connector



### Mounted Connector type: FCN Connector



## Push-in spring

Appearance*	Mounted Connector type		number of poles	Model	Dimension A (mm)	Dimension B (mm)	Dimension C (mm)
	MIL Connector	XG4A-2031	20	XW2R-P20G-T	64.4	73.9	45.11
		XG4A-3431	34	XW2R-P34G-T	98.5	108	45.11
		XG4A-4031	40	XW2R-P40G-T	113.5	123	45.11
		XG4A-5031	50	XW2R-P50G-T	138.5	148	45.11
		XG4A-6031	60	XW2R-P60G-T	163.5	173	45.11
	FCN Connector	FCN-364P040-AU	40	XW2R-P40F-T	113.5	123	28.4

\*Mounted connector of appearance is MIL connector.

## Ratings and Specifications

Rated current		1A
Rated voltage		125VAC 24VDC
Insuration resistance		100M $\Omega$ min.(at 500VDC)
Dielectric strength		500VAC for 1 min (leakage current: 1 mA max.)
Ambient operating temperature		0 to 55
Applicable wires	Applicable wire sizes	AWG 24 to 14 (rod terminals),AWG 28 to 14 (twisted or solid wires)(Outer diameter of insulation must be 4 mm max)
	Stripped length	AWG28-16: 8 to 10 mm, AWG14: 9 to 10 mm

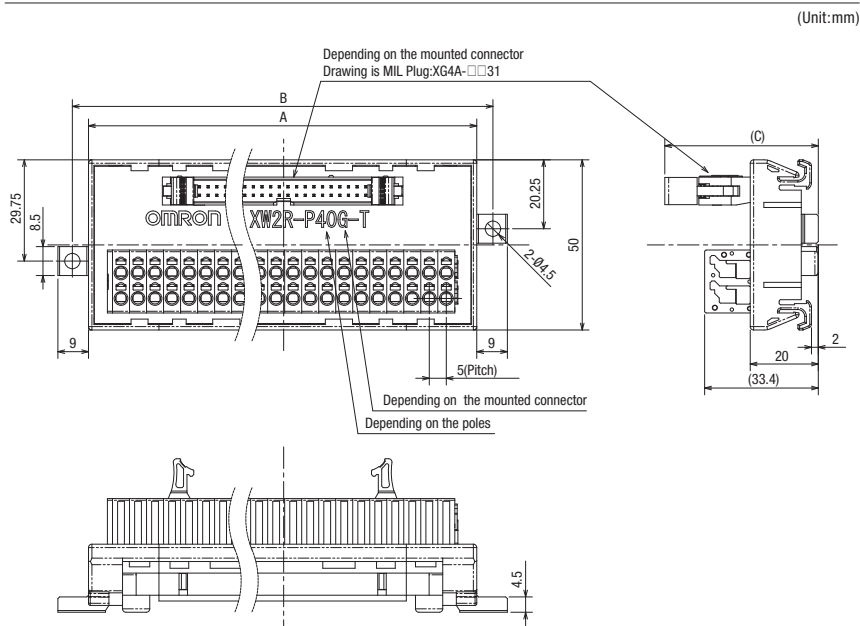
\*The details on crimp terminals are the same for the XW2R-P34G on page 8.

## Label Contents

B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

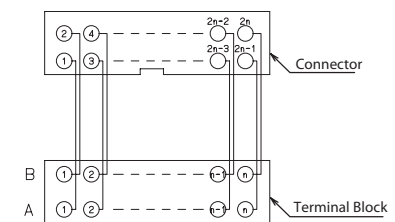
\*The label contents for a Terminal Block with 34 poles are shown.

## Dimensions

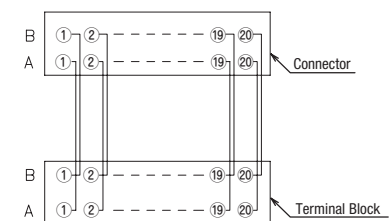


## Wiring Diagram

Mounted Connector type: MIL Connector



Mounted Connector type: FCN Connector



## XW2Z

### Appearance



### Ratings and Specifications

Rated current	1A
Rated voltage	125 VAC 24 VDC
Contact resistance	20 mΩ max. (at 20 mV, 100 mA max.) *1
Insulation resistance	100 MΩ min. (at 500 VDC)
Dielectric strength	500 VAC for 1 min (leakage current: 1 mA max.) *2
Ambient operating temperature	−25 to 80

\*1. Contact resistance for the Connector. \*2. Dielectric strength for the Connector.

### Materials and Finish

Item	Part name		Materials and Finish	
Connectors	XG4M-2030 XG4M-4030	Housing		Fiber-glass reinforced PBT resin (UL94V-0)/black
		Cover		
		Contacts	Mating end	Phosphor bronze/nickel base, 0.15-µm gold plating
			Press-fit end	Phosphor bronze/nickel base, 2.0-µm tin plating
	XG4T-2004/4004	Strain Relief		Fiber-glass reinforced PBT resin (UL94V-0)/black
	FCN-367J024-AU/F * FCN-367J040-AU/F	Housing		Polyester resin (UL94V-0)/black
		Contacts	Mating end	Copper alloy/gold plated
			Press-fit end	Copper alloy/tin plated
Connecting screw		Steel/nickel plated		
Cable	UL2464 Interface Cable		AWG28	
Crimp terminal	Forked crimp terminal		1.25 YAS 3.5 or the equivalent	

\* These housings, contacts, and connecting screws are made by Fujitsu Component, Ltd.

### XW2Z-□□□A

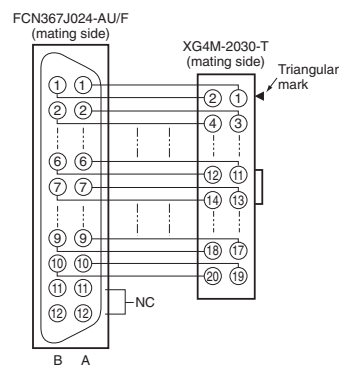
Connectors: One 24-pin Connector Made by Fujitsu Component, Ltd. to One 20-pin MIL Connector

Appearance	Model	Cable length L (m)
	XW2Z-050A	0.5
	XW2Z-100A	1
	XW2Z-150A	1.5
	XW2Z-200A	2
	XW2Z-300A	3
	XW2Z-500A	5
	XW2Z-700A	7
	XW2Z-010A	10
	XW2Z-15MA	15
	XW2Z-20MA	20

Cable length L (m)



### Wiring Diagram

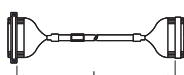


### XW2Z-□□□B

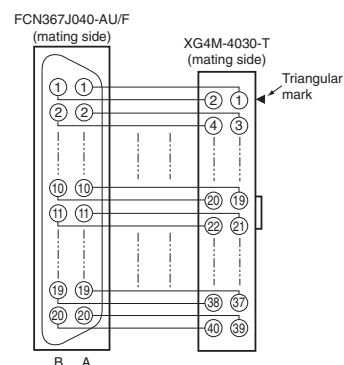
Connectors: One 40-pin Connector Made by Fujitsu Component, Ltd. to One 40-pin MIL Connector

Appearance	Model	Cable length L (m)
	XW2Z-050B	0.5
	XW2Z-100B	1
	XW2Z-150B	1.5
	XW2Z-200B	2
	XW2Z-300B	3
	XW2Z-500B	5
	XW2Z-700B	7
	XW2Z-010B	10
	XW2Z-15MB	15
	XW2Z-20MB	20

Cable length L (m)




### Wiring Diagram

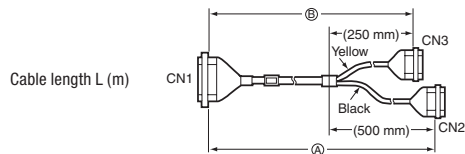




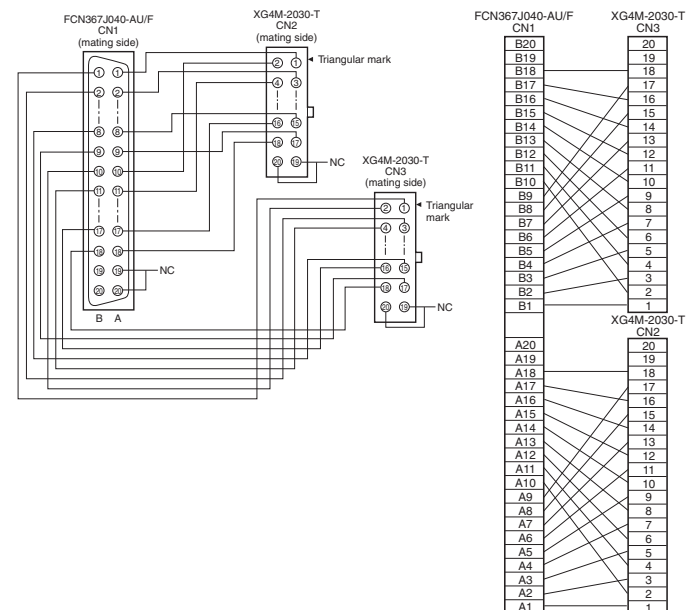
## XW2Z-□□□D

Connectors: One 40-pin Connector Made by Fujitsu Component, Ltd. to Two 20-pin MIL Connectors

Appearance	Model	Cable length L (m)	
		A	B
	XW2Z-100D	1	0.75
	XW2Z-150D	1.5	1.25
	XW2Z-200D	2	1.75
	XW2Z-300D	3	2.75
	XW2Z-500D	5	4.75
	XW2Z-010D	10	9.75
	XW2Z-15MD	15	14.75
	XW2Z-20MD	20	19.75

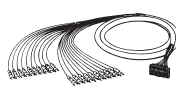


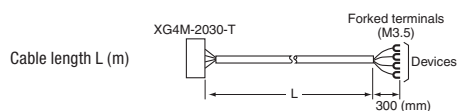
## Wiring Diagram



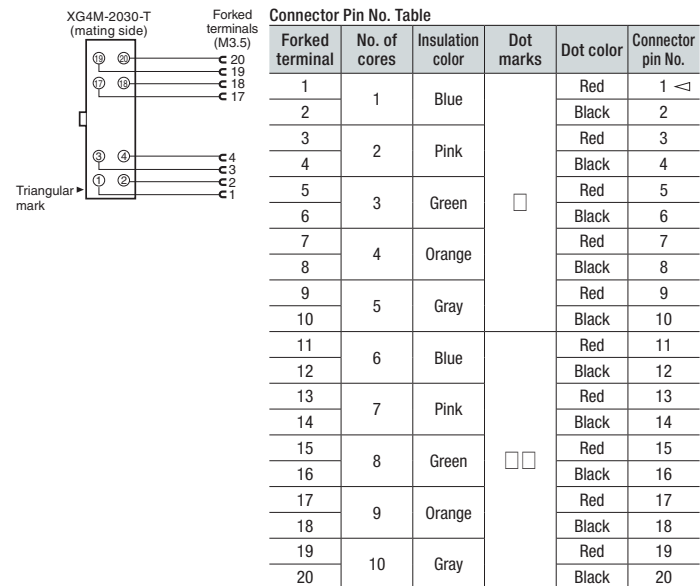
## XW2Z-□□□F

Connectors: One 20-pin MIL Connector to 20 Loose Wires with Crimp Terminals Attached

Appearance	Model	Cable length L (m)
	XW2Z-100F	1
	XW2Z-150F	1.5
	XW2Z-200F	2
	XW2Z-300F	3
	XW2Z-500F	5
	XW2Z-010F	10
	XW2Z-15MF	15
	XW2Z-20MF	20

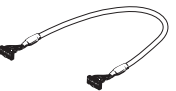


## Wiring Diagram



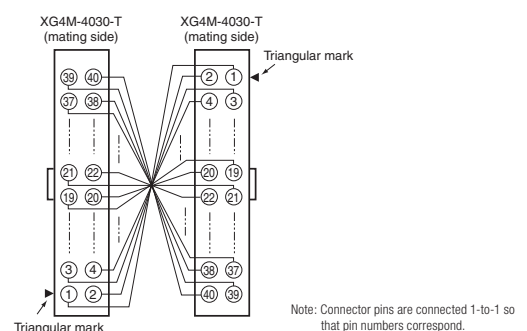
## XW2Z-□□□K

Connectors: One 40-pin MIL Connector to One 40-pin MIL Connector

Appearance	Model	Cable length L (m)
	XW2Z-C25K	0.25
	XW2Z-C50K	0.5
	XW2Z-100K	1
	XW2Z-150K	1.5
	XW2Z-200K	2
	XW2Z-300K	3
	XW2Z-500K	5
	XW2Z-010K	10




## Wiring Diagram

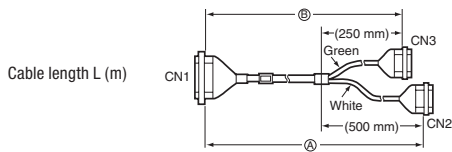


Note: Connector pins are connected 1-to-1 so that pin numbers correspond.

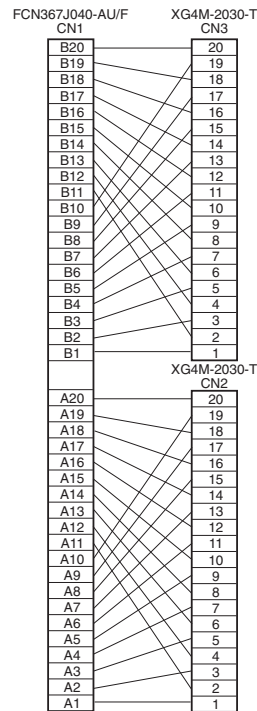
## XW2Z-□□□L

Connectors: One 40-pin Connector Made by Fujitsu Component, Ltd. to Two 20-pin MIL Connectors

Appearance	Model	Cable length L (m)	
		A	B
	XW2Z-100L	1	0.75
	XW2Z-150L	1.5	1.25
	XW2Z-200L	2	1.75
	XW2Z-300L	3	2.75
	XW2Z-500L	5	4.75
	XW2Z-010L	10	9.75
	XW2Z-15ML	15	14.75
	XW2Z-20ML	20	19.75




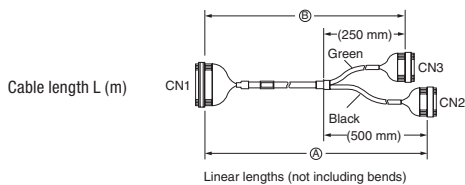
## Wiring Diagram



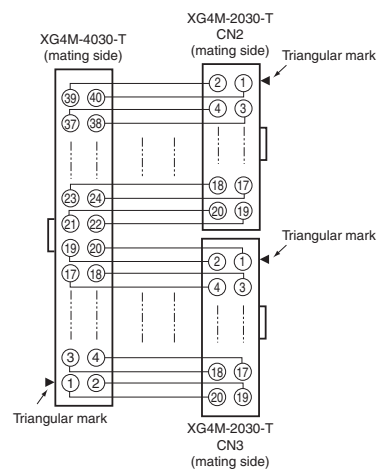
## XW2Z-□□□N

Connectors: One 40-pin MIL Connector to Two 20-pin MIL Connectors

Appearance	Model	Cable length L (m)	
		A	B
	XW2Z-100N	1	0.75
	XW2Z-150N	1.5	1.25
	XW2Z-200N	2	1.75
	XW2Z-300N	3	2.75
	XW2Z-500N	5	4.75
	XW2Z-010N	10	9.75
	XW2Z-15MN	15	14.75
	XW2Z-20MN	20	19.75

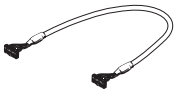


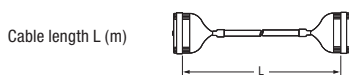
## Wiring Diagram



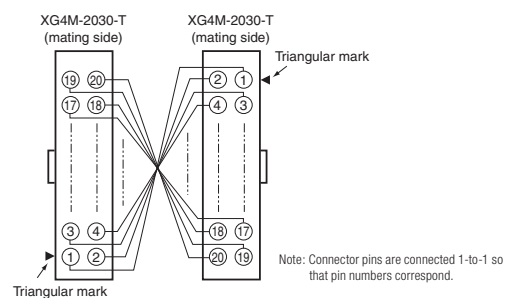
## XW2Z-□□□X

Connectors: One 20-pin MIL Connector to One 20-pin MIL Connector

Appearance	Model	Cable length L (m)
	XW2Z-C50X	0.5
	XW2Z-100X	1
	XW2Z-200X	2
	XW2Z-300X	3
	XW2Z-500X	5
	XW2Z-010X	10



## Wiring Diagram



# Safety Precautions

## Precautions for Correct Use

### ● Wiring Precautions

- 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.

### ● Wires for Terminal Blocks

- Do not damage the cores when stripping the insulation from them.
- Always twist stranded wires together before connecting them.
- Do not presolder wires. It may not be possible to connect them or remove them.

### ● XW2R-P□□type (Square/Round rods terminal)

Type of terminal	Manufacturer	Size	Post terminal model	Recommend crimp tool
Square rod	Phoenix Contact	AWG24	AI0.25-8□□	CRIMFOX6
		AWG22	AI0.34-8TQ	
		AWG20	AI0.5-10WH AI0.5-8WH	
		AWG18	AI0.75-10GY AI0.75-8GY	
		AWG16	AI1.5-10BK	
		AWG14	AI2.5-8BU	
	Weidmuller	AWG24	H0.25/12	PZ6 roto
		AWG22	H0.34/12	
		AWG20	H0.5/14	
		AWG18	H0.75/14	
		AWG16	H1.5/14	
		AWG14	H2.5/15D	
Round rod	Nichifu	AWG22- AWG16	TGV TC-1.25-9T	NH11 NH32 NH65

Note: □□ of rod terminal model is for color (Ex: YE = Yellow)

### ● When an electric wire is connected directly (J,E,P type)



Model	Strip length "a"
XW2R-J□□	9 mm
XW2R-E□□	7 mm
XW2R-P□□	AWG28-16: 8 to 10 mm
	AWG14: 9 to 10 mm

### ● Mounting Units to and Removing Units from DIN Track

#### Mounting Procedure



- 1.Hook the Unit on the DIN Track.
- 2.Press the Unit onto the DIN Track to secure it.

#### Removal Procedure

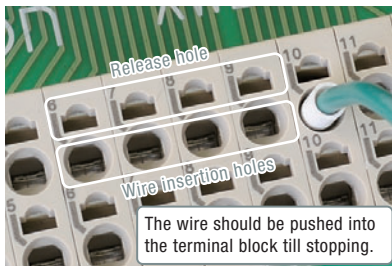


- 1.Insert a flat-blade screwdriver into the DIN Track lock.
- 2.Move the screwdriver like a lever to free the lock.

## ● Connecting Spring cramp Terminals

### Using Ferrules

#### How to insert wire



#### How to release wire



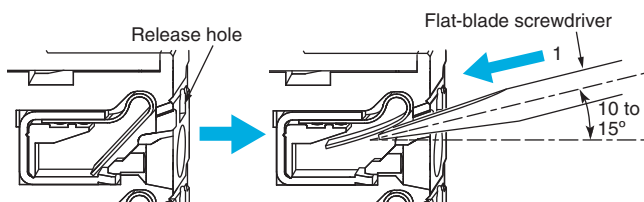
### Using Stripped Wires

#### Inserting and Removing Wires

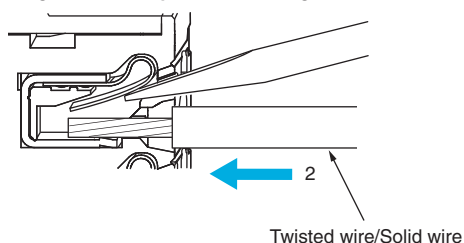


#### Inserting Wires

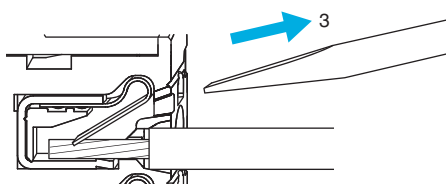
- ① Press the a flat-blade screwdriver diagonally into the release hole.  
Press at an angle of  $10^{\circ}$  to  $15^{\circ}$ .  
If you press in the screwdriver correctly, you will feel the spring in the release hole.



- ② Leave the flat-blade screwdriver pressed into the release hole and insert the twisted wire or the solid wire into the terminal hole.  
Insert the twisted wire or the solid wire until the stripped portion is no longer visible to prevent shorting.

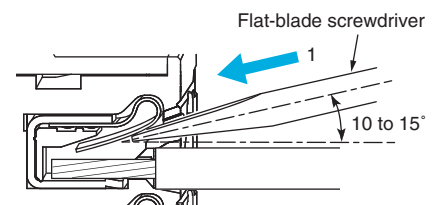


- ③ Remove the flat-blade screwdriver from the release hole.

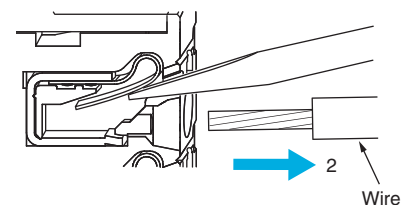


#### Removing Wires

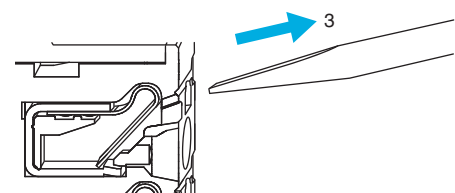
- ① Press the flat-blade screwdriver diagonally into the release hole.  
Press at an angle of  $10^{\circ}$  to  $15^{\circ}$ .  
If you press in the screwdriver correctly, you will feel the spring in the release hole.



- ② Leave the flat-blade screwdriver pressed into the release hole and pull out the wire.

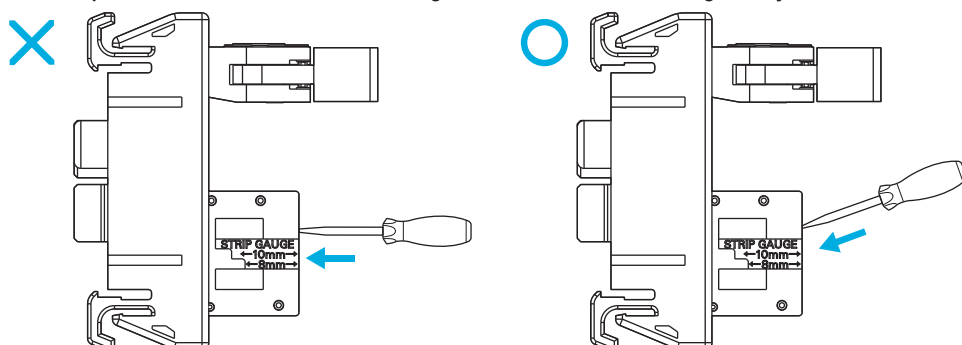


- ③ Remove the flat-blade screwdriver from the release hole.

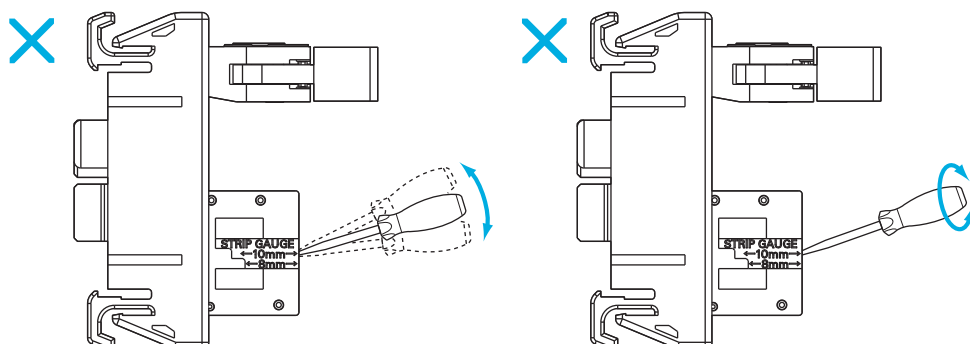


## Precautions for Safe Use

- Do not press the flat-blade screwdriver straight into the release hole. Doing so may break the terminal block.



- When you insert a flat-blade screwdriver into a release hole, press it down with a force of 30 N max. Applying excessive force may damage the terminal block.
- Do not tilt or twist the flat-blade screwdriver while it is pressed into the release hole. Doing so may break the terminal block.



- Make sure that all wiring is correct.
- Do not bend the cable forcibly. Doing so may sever the cable.

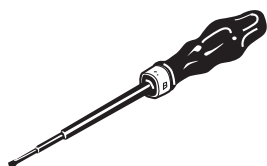
## Use tool

- Select a use tool from following table.

Model	Use tool	Specialized tool and dimension
XW2R-J□□	Phillips screwdriver	JIS#2
XW2R-E□□	Flat-blade screwdriver	Model XW4Z-00B Head of screwdriver is 0.4 × 2.5mm max.
XW2R-P□□		

## Flat-blade screwdriver

Models
XW4Z-00B



## Bending Radius of Connecting Cables

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

X W 2 Z - □ □ □ □ □

End of model number	Minimum bending radius
A, F, or X	67.2 mm
B, D, K, L, or N	88 mm

## For checking electrical continuity

- XW2R-E□□ type: There is no electrical continuity in the screw, Please confirm it at hole for confirming continuity or wiring part.

## This image shows a full page of blank graph paper. The grid consists of small, evenly spaced squares formed by thin, light gray dashed lines. There are no margins, text, or other markings on the page.



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