

# Common Terminals XW2R-COM

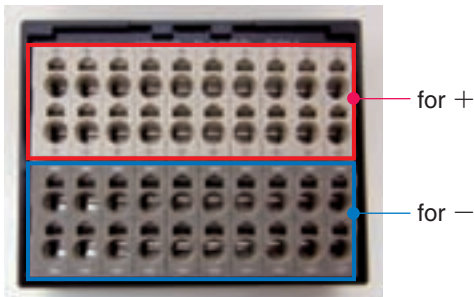
CSM\_XW2R-P\_M\_B-COM\_DS\_E\_1\_1

Space-saving and less wiring work of power supply wiring are achieved.

- Common wiring is already wired on the PCB, transition wiring is unnecessary.
- Wiring is completed by one action.
- Models available with +, -, + - Mix.

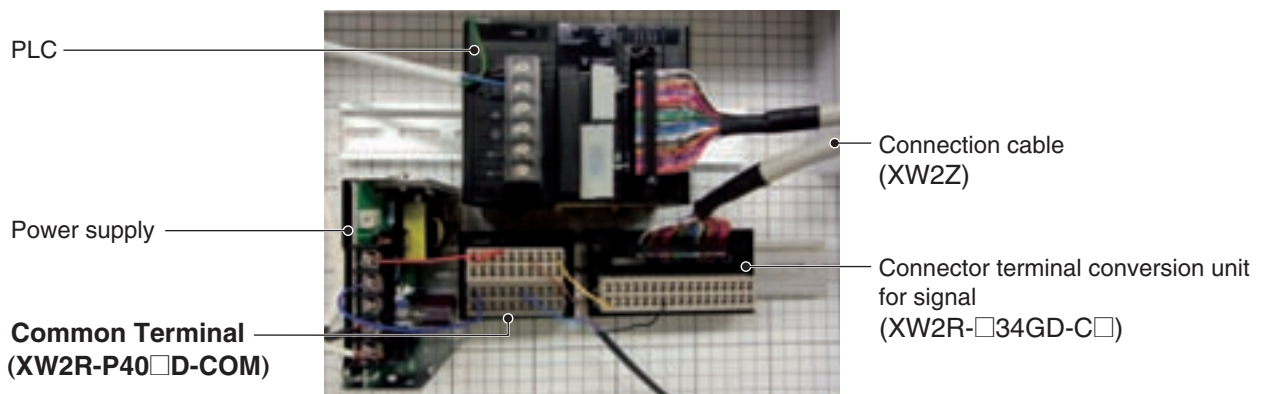


## Application Example



**Each terminal connected by PCB.**  
→ Bus-bar and transition wiring are unnecessary.

## Connection Examples






## Model list

XW2R - P 40 □ D - COM

| Wiring method |                | Terminal number of poles |          | Type of connector |          | Mounting method |                    | Power supply terminals (Common terminals) |          |
|---------------|----------------|--------------------------|----------|-------------------|----------|-----------------|--------------------|---|----------|
| P             | Push-in spring | 40                       | 40 poles | P                 | + Common | D               | DIN Track mounting | COM                                       | Provided |
|               |                |                          |          | M                 | - Common |                 |                    |   |          |
|               |                |                          |          | B                 | + - Mix  |                 |                    |   |          |

# XW2R

## Ordering Information

| Appearance  | Specification     | Number of poles | Model          |
|---|-------------------|-----------------|----------------|
|  | + Common terminal | 40              | XW2R-P40PD-COM |
|  | - Common terminal |                 | XW2R-P40MD-COM |
|  | + - Mix terminal  |                 | XW2R-P40BD-COM |

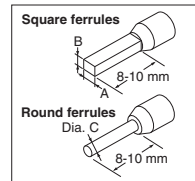
## Ratings and Specifications

|                               |   |
|-------------------------------|---|
| Rated current                 | 10A(Unit total)   |
| Rated voltage                 | 125VDC/240VAC   |
| Insulation resistance         | 100MΩmin. (at 500VDC)   |
| Ambient operating temperature | 0 to 55°C   |
| Applicable wires              | Applicable wire sizes<br>Ferrule:AWG24 to 14<br>(0.2mm <sup>2</sup> to 2mm <sup>2</sup> )<br>Stranded or solid wire:AWG 28 to 14<br>(0.08mm <sup>2</sup> to 2mm <sup>2</sup> )<br>(Outer diameter of insulation must be 4 mm max) |
|                               | Stripped length<br>AWG28-16: 8 to 10 mm<br>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.

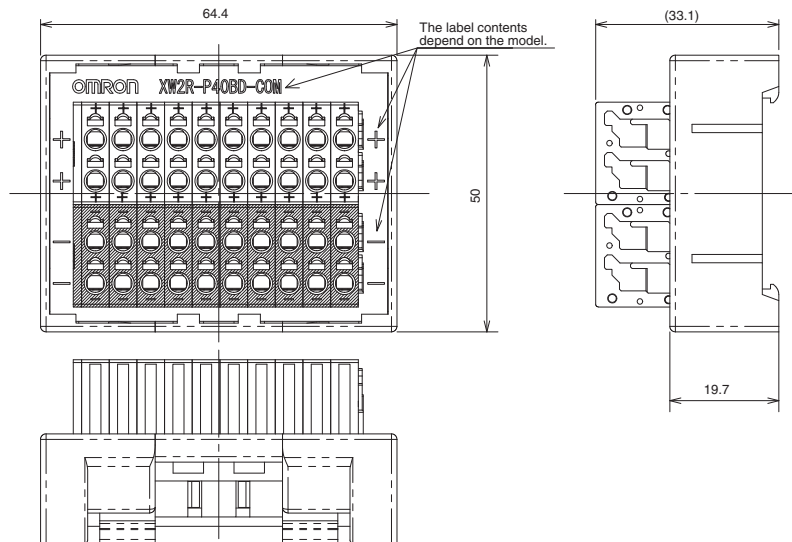


- Ferrule Dimensions

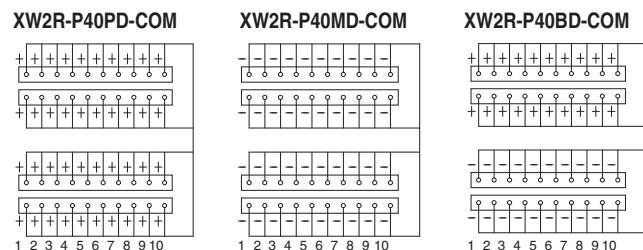
|                 |                        |                                 |   |
|-----------------|------------------------|---------------------------------|---|
| Square ferrules | Dimension A (Width)    | 2.7 mm max.                     | The cross-sectional area after crimping must be 4.8 mm <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 3 for information on Square/Round ferrule and use tool.

## Dimensions



## Wiring Diagram



## Label Contents

|                |       |   |   |   |   |   |   |   |   |   |    |
|----------------|-------|---|---|---|---|---|---|---|---|---|----|
| XW2R-P40PD-COM | Upper | + | + | + | + | + | + | + | + | + |    |
|                | Lower | + | + | + | + | + | + | + | + | + |    |
| XW2R-P40MD-COM | Upper | - | - | - | - | - | - | - | - | - |    |
|                | Lower | - | - | - | - | - | - | - | - | - |    |
| XW2R-P40BD-COM | Upper | + | + | + | + | + | + | + | + | + |    |
|                | Lower | - | - | - | - | - | - | - | - | - |    |
|                |       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

## 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

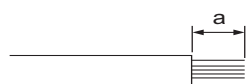
- Do not damage the cores when stripping the insulation from them.
- Always twist stranded wires together before connecting them.
- Do not presolder wires. It may not be possible to connect them or remove them.

#### XW2R-P□□ type (Square/Round ferrule)

| Type of terminal | Manufacturer    | Size            | Recommend ferrule         | Recommend crimp tool |
|------------------|-----------------|-----------------|---------------------------|----------------------|
| Square ferrule   | Phoenix Contact | AWG24           | AI0.25-8□□                | CRIMFOX6             |
|                  |                 | AWG22           | AI0.34-8TQ                |                      |
|                  |                 | AWG20           | AI0.5-10WH<br>AI0.5-8WH   |                      |
|                  |                 | AWG18           | AI0.75-10GY<br>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 ferrule    | Nichifu         | AWG22-<br>AWG16 | TGV TC-1.25-9T            | NH11<br>NH32<br>NH65 |

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

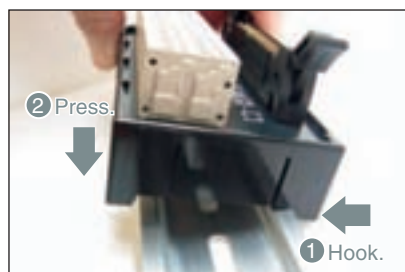
#### When an electric wire is connected directly (J,E,P type)



| 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    |

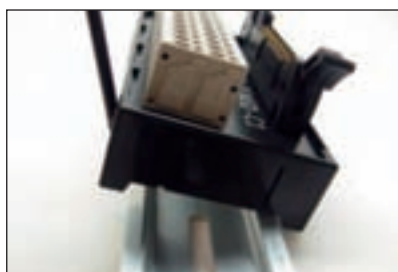
#### Mounting Units to and Removing Units from DIN Track

##### Mounting Procedure



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

##### Removal Procedure

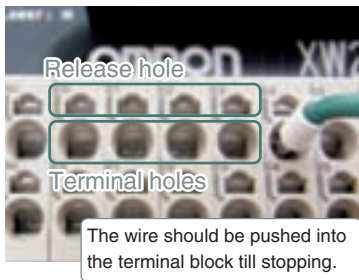


- Insert a flat-blade screwdriver into the DIN Track lock.
- Move the screwdriver like a lever to free the lock.

## Connecting Spring cramp Terminals

### Using Ferrules

#### How to insert wire

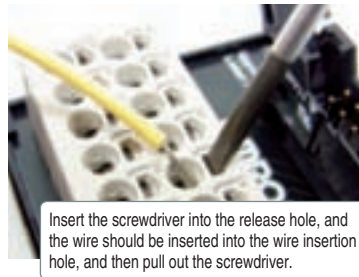


#### How to release wire



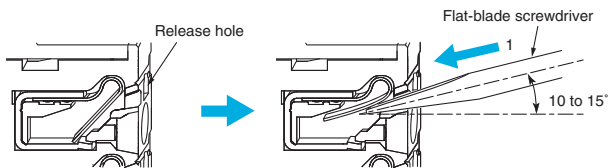
### Using Stripped Wires

#### Inserting and Removing Wires

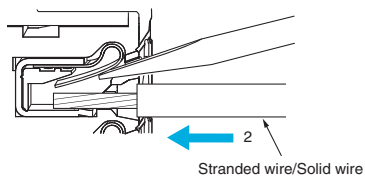


#### Inserting Wires

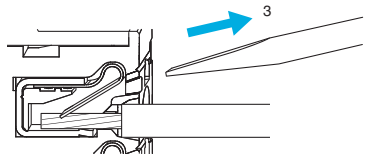
1. Press the a flat-blade screwdriver diagonally into the release hole. Press at an angle of  $10^\circ$  to  $15^\circ$ . If you press in the screwdriver correctly, you will feel the spring in the release hole.



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

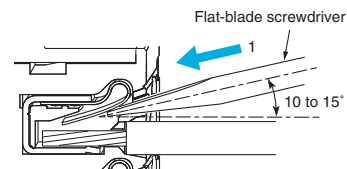


3. Remove the flat-blade screwdriver from the release hole.

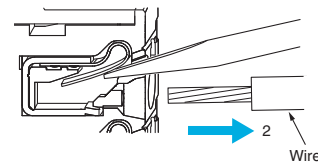


#### Removing Wires

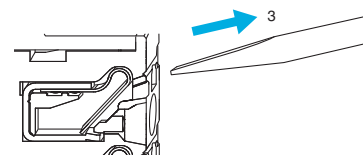
1. Press the flat-blade screwdriver diagonally into the release hole. Press at an angle of  $10^\circ$  to  $15^\circ$ . If you press in the screwdriver correctly, you will feel the spring in the release hole.



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

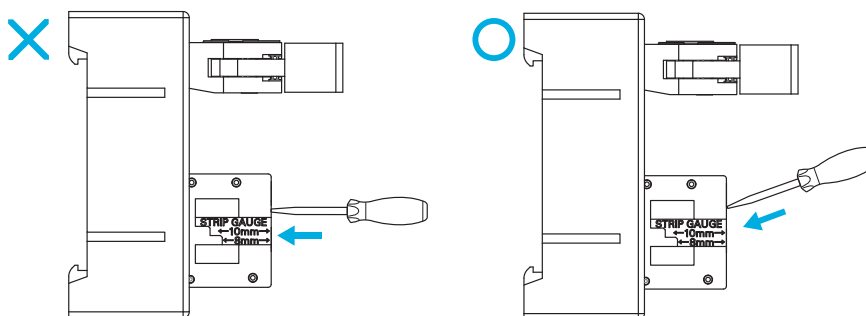


3. Remove the flat-blade screwdriver from the release hole.

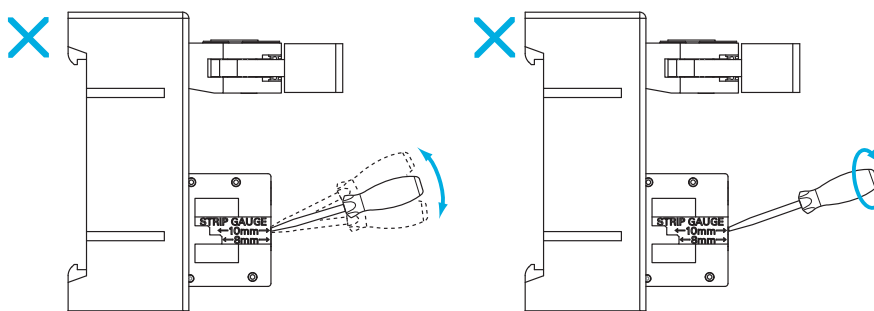


**Precautions for Safe Use**

- 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.

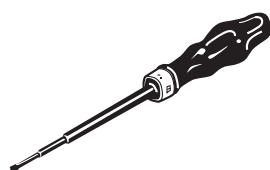
**Use tool**

- 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<br>Head of screwdriver is 0.4 x 2.5mm max. |
| XW2R-P□□ |                        |   |

**Flat-blade screwdriver**

| Model    |
|----------|
| XW4Z-00B |



**Bending Radius of Connecting Cables**

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

XW2Z - □ □ □ □ □

| End of model number | Minimum bending radius |
|---------------------|------------------------|
| BF-L, EE-L, FF-L    | 66 mm                  |
| A                   | 67.2 mm                |
| EE                  | 83 mm                  |
| B, D, K, L, 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.

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