**OMRON**

# I/O Relay Terminal
## G70V

## I/O Relay Terminals with 16 Points and Push-In Plus terminal blocks to Downsize Control Panels and Save Labor

- I/O Relay Terminals with 16 points to mount G2RV Slim I/O Relays.
- Push-In Plus terminal blocks are used to save wiring work in comparison with traditional screw terminals. (Wiring time is reduced by 60%✻ in comparison with traditional screw terminals.)
- Work is reduced ever further with one-step cable connection to the PLC.
- Diode provided for coil surge absorption.
- Operation indicators for immediate recognition of I/O signal status.
- Accepts G3RV Slim I/O SSRs.
- DIN Track or screw mounting.

✻ According to OMRON actual measurement data from November 2015.

⚠ Refer to *Safety Precautions* on page 9.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

## Model Number Legend

G70V - ☐ ☐ ☐ 16 P - ☐
       (1) (2) (3) (4) (5) (6)

(1) Mountable Relays
- S: Relays
- Z: Sockets

(2) Input/Output Classification
- I: For input
- O: For output

(3) I/O Specification
- C: Contacts (Applicable when (2) is O (for output) (relay output).)
- D: DC (Applicable when (2) is I (for input) (coil for input).)
- M: AC/DC (Applicable when (1) is Z (Sockets).)

(4) Number of I/O Points
- 16: 16 points

(5) Terminal Type
- P: Push-In Plus terminal blocks
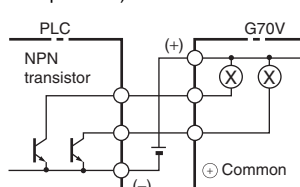
(6) Internal I/O Circuit Common
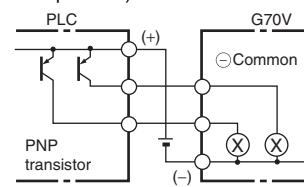- Blank: NPN
- 1: PNP

(For Input NPN)
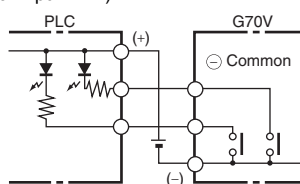
(For Input PNP)
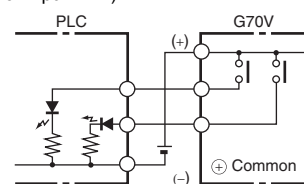
(For Output NPN)

(For Output PNP)

# G70V

# Ordering Information

## I/O Relay Terminal

| Terminals | Type | Points | Internal I/O circuit common | Rated voltage | Model |
|---|---|---|---|---|---|
| Push-In Plus terminal blocks | Input *1 | 16 | NPN (– common) | 24 VDC | **G70V-SID16P** |
| | | | PNP (+ common) | | **G70V-SID16P-1** |
| | Output *2 | | NPN (+ common) | | **G70V-SOC16P** |
| | | | PNP (– common) | | **G70V-SOC16P-1** |

*1. Mountable Relays: G2RV-1-S-AP-G DC21V.
*2. Mountable Relays: G2RV-1-S-G DC21V.

### Relay Terminal Sockets

| Applicable I/O Relay Terminal | Type | Common Processing in Connector | Model |
|---|---|---|---|
| G70V-SID16P | Input | NPN (– common) | **G70V-ZID16P** |
| G70V-SID16P-1 | | PNP (+ common) | **G70V-ZID16P-1** |
| G70V-SOC16P | Output | NPN (+ common) | **G70V-ZOM16P** |
| G70V-SOC16P-1 | | PNP (– common) | **G70V-ZOM16P-1** |

**Note:** Relays are not mounted to the G70V-ZID/ZOM16P(-1) Relay Terminal Sockets. Combine the Relay Terminal Sockets with Slim I/O Relays or Slim I/O SSRs.

## Accessories (Order Separately)

### Mountable Relays

| Applicable I/O Relay Terminal | Type | Classification | | Model |
|---|---|---|---|---|
| G70V-SID16P(-1) | Input | Slim I/O Relays *1 | | **G2RV-1-S-AP-G DC21** |
| G70V-SOC16P(-1) | Output | Slim I/O Relays | No Latching Lever *2 | **G2RV-1-S-G DC21** |
| | | | Latching Lever | **G2RV-1-SI-G DC21** |
| | | Slim I/O SSRs | For AC — Zero cross function | **G3RV-202S DC24** |
| | | | For AC — No zero cross function | **G3RV-202SL DC24** |
| | | | For DC | **G3RV-D03SL DC24** |

**Note:** To use Slim I/O SSRs, either remove the Slim I/O Relays to mount them or order a Relay Terminal Socket and I/O SSRs separately and combine them.
*1. G2RV-1-S-AP-G Slim I/O Relays are mounted to G70V-SID16P(-1) I/O Relay Terminals as a standard feature.
*2. G2RV-1-S-G Slim I/O Relays are mounted to G70V-SOC16P(-1) I/O Relay Terminals as a standard feature.
When ordering, designate the rated voltage.

### Connecting Cables XW2Z-R

- Cable with Loose Wire and Crimp Terminals:  XW2Z-RY□C
- Cable with Loose Wires:  XW2Z-RA□C
- Cable with Fujitsu connectors (1:1):  XW2Z-R□C
- (1:2):  XW2Z-RI□C-□
-   XW2Z-RO□C-□
- (1:3):  XW2Z-R□C-□-□
- Cable with MIL connectors (1:1):  XW2Z-RI□C
-   XW2Z-RO□C
- (1:2):  XW2Z-RI□-□-D□
-   XW2Z-RM□-□-D□
-   XW2Z-RO□-□-D1

Refer to *Applicable Cables* on page 11 for details.

### Labels

| Model | Minimum order (sheet) (quantity per sheet) |
|---|---|
| **XW5Z-P2.5LB2** | 5 (1 sheet / 72 pieces) |

### Parts for DIN Track Mounting

| Type | | Model | Minimum order (quantity) |
|---|---|---|---|
| DIN Tracks | 1 m | **PFP-100N** | --- |
| | 0.5 m | **PFP-50N** | |
| End Plate | | **PFP-M** | 10 |
| Spacer | | **PFP-S** | |

Refer to your OMRON website for details on the PFP-□.

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# Specifications

## Coil Ratings (Common to Input/Output per Relay)

| Item<br>Rated voltage (V) | Rated current (mA) | Coil resistance (Ω) | Must operate of rated voltage | Must release of rated voltage | Maximum voltage of rated voltage | Power consumption (mW) |
|---|---|---|---|---|---|---|
| 24 VDC | 13.3 | 1575 | 80% max. | 10% min. | 110% | Approx. 280 |

Note:
1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±15% for coil resistance.
2. The operating characteristics are measured at a coil temperature of 23°C.
3. The value for maximum voltage is the maximum value within the allowable voltage fluctuation range for the relay coil's operating power supply. Continuous operation at this voltage is not within product specifications.
4. The rated current includes the current for the indicators on the I/O Relay Terminal.

## Contact Ratings (G2RV-1-S-G I/O Relay)

| Classification<br>Item | For input | For output | |
|---|---|---|---|
| | Resistive load (cosφ=1) | Resistive load (cosφ=1) | Inductive load (cosφ=0.4 L/R=7 ms) |
| Rated load | 50 mA at 30 VAC<br>50 mA at 36 VDC | 6 A at 250 VAC<br>6 A at 30 VDC | 2.5 A at 250 VAC<br>2 A at 30 VDC |
| Rated carry current | 50 mA | 6 A | |
| Max. switching voltage | 30 VAC, 36 VDC | 250 VAC, 125 VDC | |
| Max. switching current | 50 mA | 6 A | |
| Maximum switching capacity | --- | 1,500 VA<br>180 W | 500 VA<br>60 W |
| Error rate (reference value) ✱ | 1 mA at 100 mVDC | 10 mA at 5 VDC | |
| Electrical life expectancy | 5,000,000 operations min. | NO contacts: 70,000 operations min.<br>NC contacts: 50,000 operations min. | |
| Mechanical life expectancy | 5,000,000 operations min. | 5,000,000 operations min. | |

✱ The above values are for a switching frequency of 120 operations/min.

## Characteristics

| Model<br>Item | G70V-SID16P(-1)<br>(Input, DC coil) | G70V-SOC16P(-1)<br>(output, DC coil) |
|---|---|---|
| Contact form | SPST-NO × 16 | SPDT×16 |
| Contact material | Ag alloy + Au plating | Ag alloy |
| Contact resistance ✱1 | 150 mΩ max. | |
| Must Operate time ✱2 | 20 ms max. | |
| Release time ✱2 | 40 ms max. | |
| Max. switching frequency — Mechanical limit | 18,000 operations/hour | |
| Max. switching frequency — At rated load | 1,800 operations/hr (under rated load) | |
| Insulation resistance | 100 MΩ min. | |
| Dielectric strength | Between coil and contacts: 2,500 VAC for 1 min | |
| Vibration resistance | 100 m/s$^2$ | |
| Shock resistance | 100 m/s$^2$, 3 times each in 6 directions along 3 axes | |
| Noise immunity | Noise level: 1.5 kV; pulse width: 100 ns to 1 μs | |
| Ambient operating temperature | −40 to 55°C (with no icing or condensation) | |
| Ambient operating humidity | 35% to 85% RH | |
| LED color — Power supply | Green | |
| LED color — I/O | Yellow | |
| Weight | Approx. 350 g | Approx. 370 g |

Note: The above values are initial values.
✱1. Measurement condition: 1 A at 5 VDC.
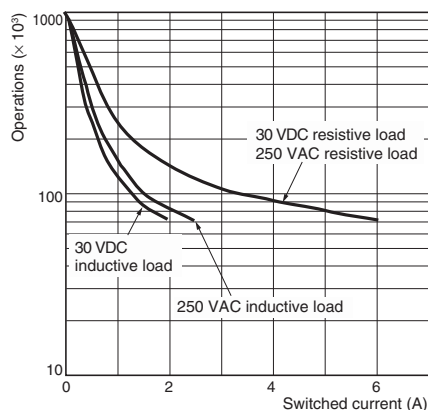✱2. Ambient temperature: 23°C.

## Applicable Standards

• UL 61010-2-201, CAN/CSA-C22.2 No.61010-2-201, TÜV (EN 61810-1)

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## Engineering Data (Reference Value)

### Endurance Curve (NO Contacts)
### G70V-SOC16P(-1)

Operations ($\times 10^3$) vs. Switched current (A)

- 30 VDC resistive load
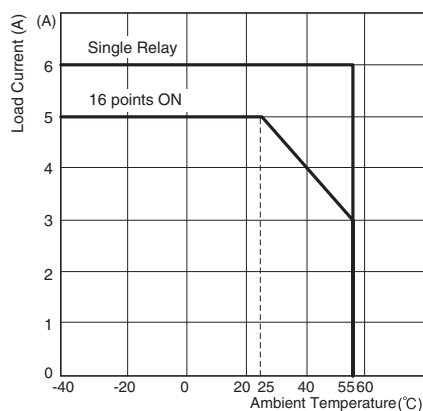- 250 VAC resistive load
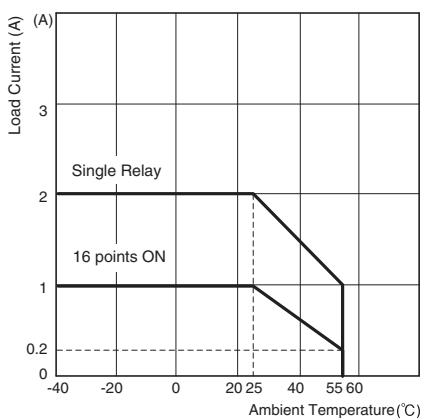- 30 VDC inductive load
- 250 VAC inductive load

**Note:** These data are actual measured values that were sampled from the production line and prepared in graph format, and are for reference purposes only. A relay is manufactured by mass production, and as a basic rule must be used with allowance made for a certain amount of deviation.
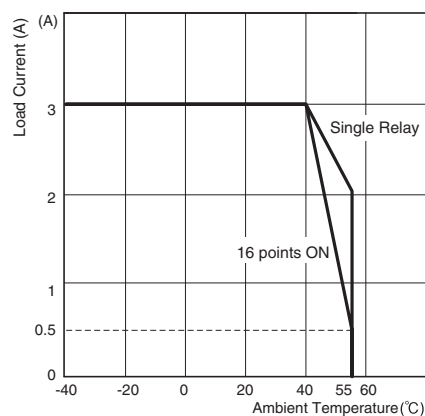
### Load Current vs. Ambient Temperature

**G70V-SOC16P(-1)**

Load Current (A) vs. Ambient Temperature (℃)
- Single Relay
- 16 points ON

**G3RV-202S DC24**
**G3RV-202SL DC24**

Load Current (A) vs. Ambient Temperature (℃)
- Single Relay
- 16 points ON

**G3RV-D03 DC24**

Load Current (A) vs. Ambient Temperature (℃)
- Single Relay
- 16 points ON

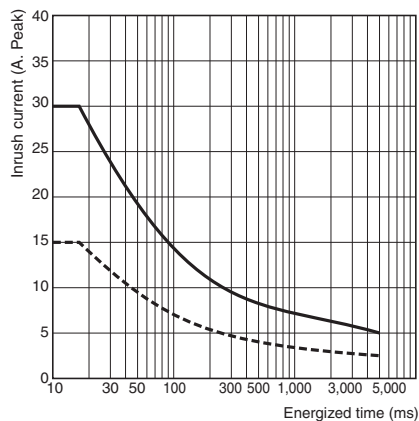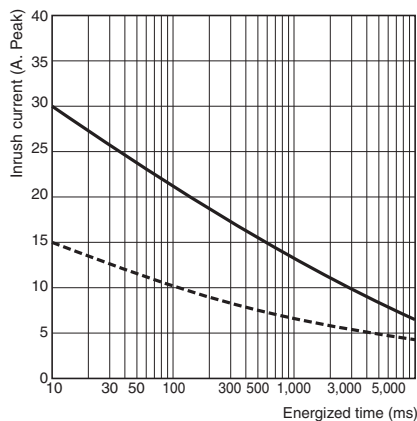### Inrush Current Resistance: Non-repetitive

The following graphs show the maximum inrush currents that can be withstood for non-repetitive operation.

For repetitive operation, the figures should be reduced by half.

**G3RV-202S DC24**
**G3RV-202SL DC24**

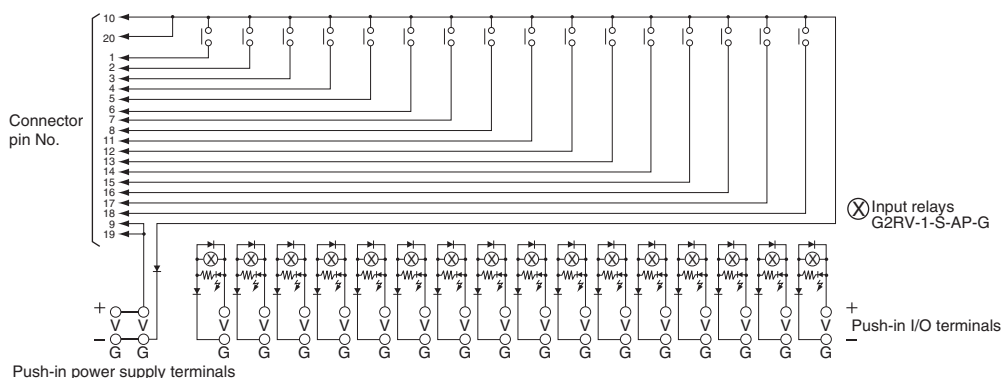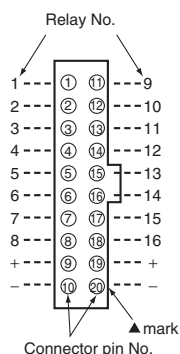Inrush current (A. Peak) vs. Energized time (ms)

**G3RV-D03 DC24**

Inrush current (A. Peak) vs. Energized time (ms)

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# Terminal Arrangement/Internal Connection

## G70V-SID16P
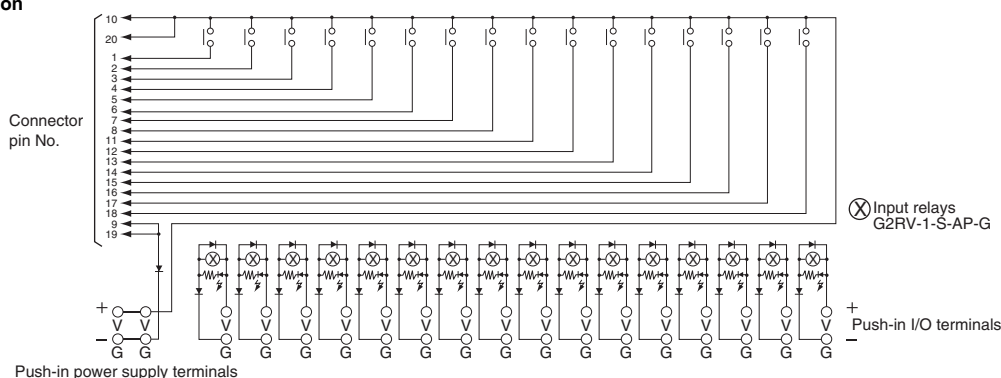### (NPN input/– common)

**Connector Pin Configuration**
**Top View**



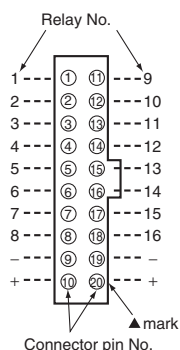**Note:** Pin numbers are indicated for convenience. The ▲ mark can be used to determine orientation.

| Terminal name | Description |
|---|---|
| V (push-in power supply terminals) | Unit power supply terminals (24 VDC) |
| G (push-in power supply terminals) | |
| V (push-in I/O terminals) | Relay-drive coil terminals (24 VDC) |
| G (push-in I/O terminals) | |

## G70V-SID16P-1
### (PNP input/+ common)

**Connector Pin Configuration**
**Top View**



**Note:** Pin numbers are indicated for convenience. The ▲ mark can be used to determine orientation.

| Terminal name | Description |
|---|---|
| V (push-in power supply terminals) | Unit power supply terminals (24 VDC) |
| G (push-in power supply terminals) | |
| V (push-in I/O terminals) | Relay-drive coil terminals (24 VDC) |
| G (push-in I/O terminals) | |

# G70V

## G70V-SOC16P
### (NPN output/+ common)
**Note:** A controller with an NPN transistor, common output can be connected to the G70V-SOC16P.

**Connector Pin Configuration**
**Top View**



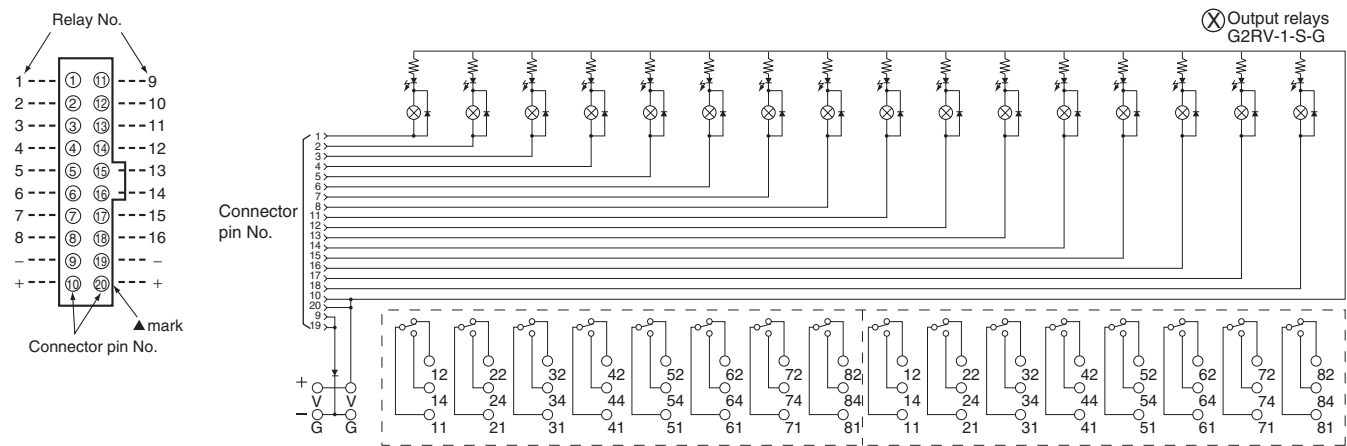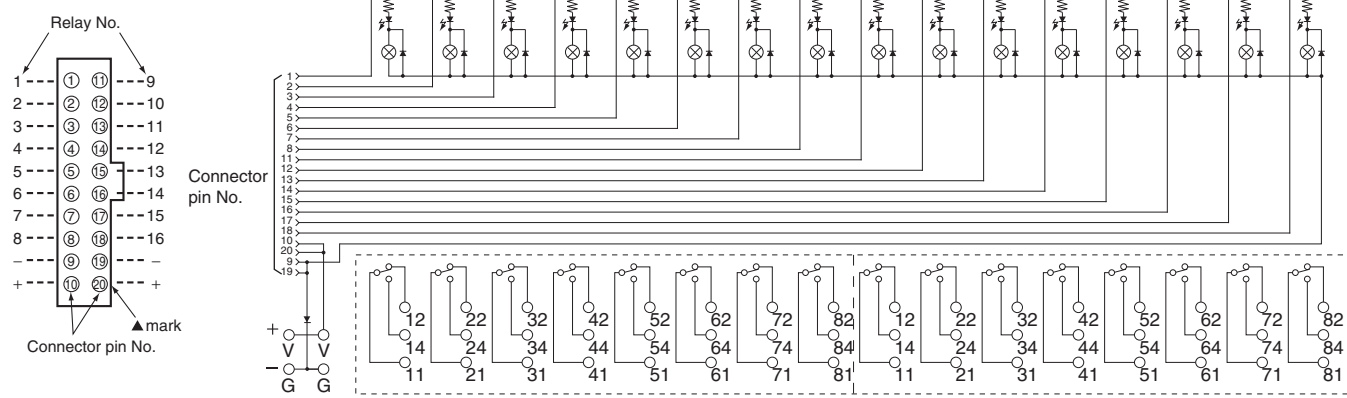**Note:** Pin numbers are indicated for convenience. The ▲ mark can be used to determine orientation.

| Terminal name | Description |
|---|---|
| V (push-in power supply terminals) | Unit power supply terminals (24 VDC) |
| G (push-in power supply terminals) | |
| 11 to 81 (push-in I/O terminal common terminals) | Relay contact terminals |
| 12 to 82 (push-in I/O terminal NC terminals) | |
| 14 to 84 (push-in I/O terminal NO terminals) | |

## G70V-SOC16P-1
### (PNP output/- common)
**Note:** A controller with a PNP transistor, + common output can be connected to the G70V-SOC16P-1.
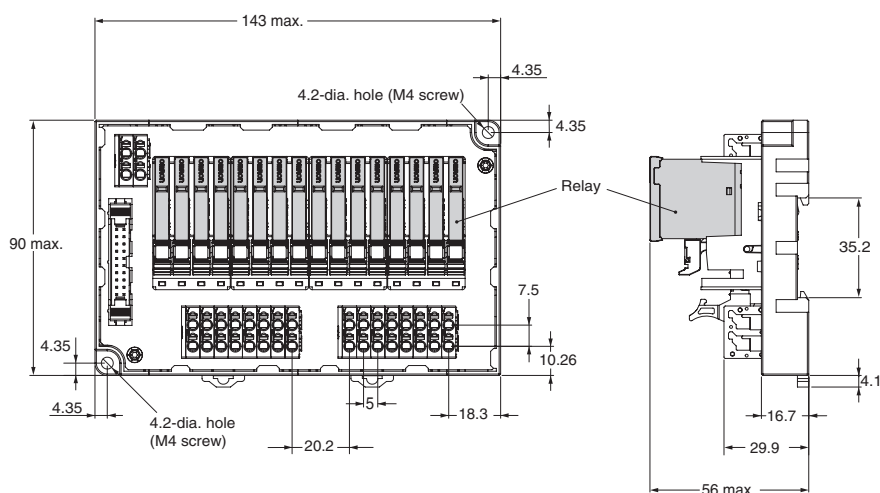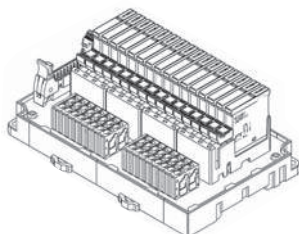
**Connector Pin Configuration**
**Top View**



**Note:** Pin numbers are indicated for convenience. The ▲ mark can be used to determine orientation.

| Terminal name | Description |
|---|---|
| V (push-in power supply terminals) | Unit power supply terminals (24 VDC) |
| G (push-in power supply terminals) | |
| 11 to 81 (push-in I/O terminal common terminals) | |
| 12 to 82 (push-in I/O terminal NC terminals) | Relay contact terminals |
| 14 to 84 (push-in I/O terminal NO terminals) | |

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# Dimensions

**I/O Relay Terminals and Relay Terminal Sockets**

**For Inputs**
**G70V-SID16P**
**G70V-SID16P-1**
**G70V-ZID16P**
**G70V-ZID16P-1**

143 max.

4.35

4.2-dia. hole (M4 screw)

4.35

Relay

90 max.

35.2

7.5

4.35

10.26

4.1

4.35

5

18.3

16.7

4.2-dia. hole
(M4 screw)

20.2

29.9

56 max.

**Note: 1.** Relays are not mounted to the G70V-ZID16P(-1) Relay Terminal Sockets.
The dimensions are for when Relays are not mounted.
**2.** Specified mounting torque: 0.59 to 0.98 N·m.

**For Outputs**
**G70V-SOC16P**
**G70V-SOC16P-1**
**G70V-ZOM16P**
**G70V-ZOM16P-1**

143 max.

4.35

4.2-dia. hole (M4 screw)

4.35

Relay

90 max.

35.2

7.8

7.8

4.35

10.26

4.1

4.35

5

18.24

16.7

4.2-dia. hole
(M4 screw)

20.2

29.9

56 max.
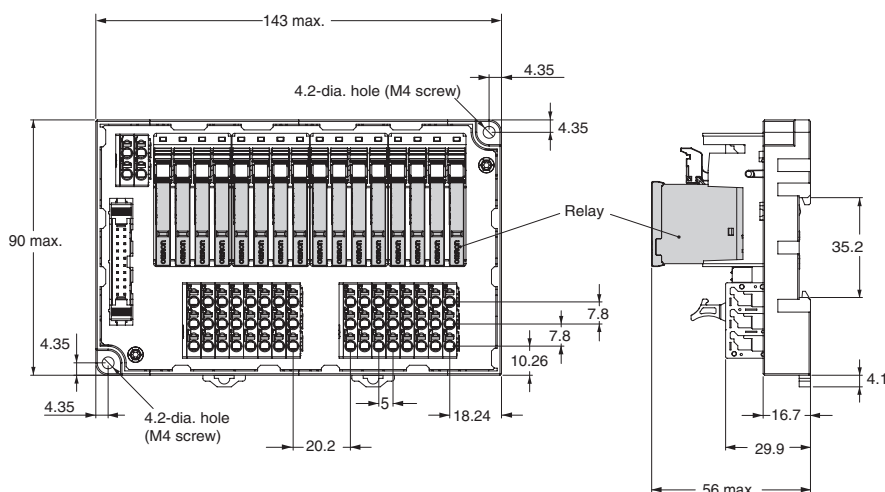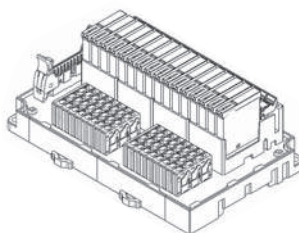
**Note: 1.** Relays are not mounted to the G70V-ZOM16P(-1) Relay Terminal Sockets.
The dimensions are for when Relays are not mounted.
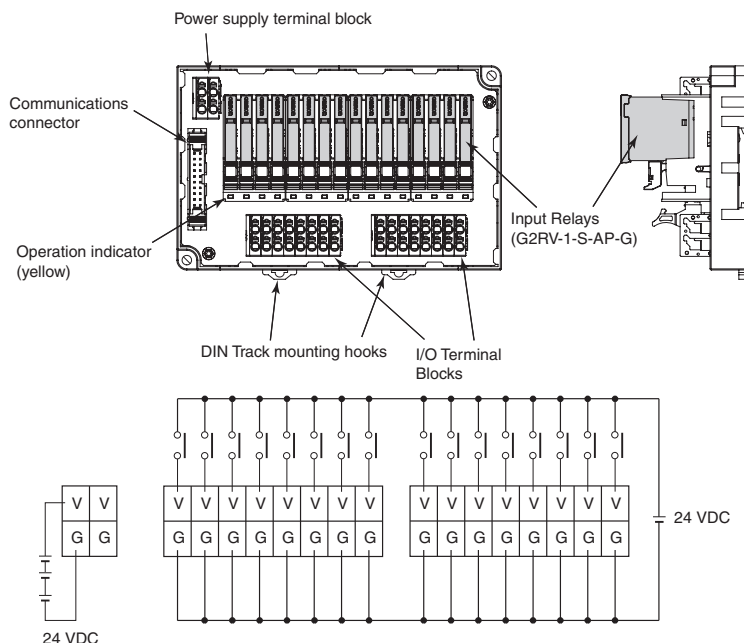**2.** Specified mounting torque: 0.59 to 0.98 N·m.

# G70V

# I/O Relay Terminal Details

## Input Relay Terminal

**G70V-SID16P**
**G70V-SID16P-1**



Power supply terminal block

Communications connector

Operation indicator (yellow)

Input Relays (G2RV-1-S-AP-G)

DIN Track mounting hooks
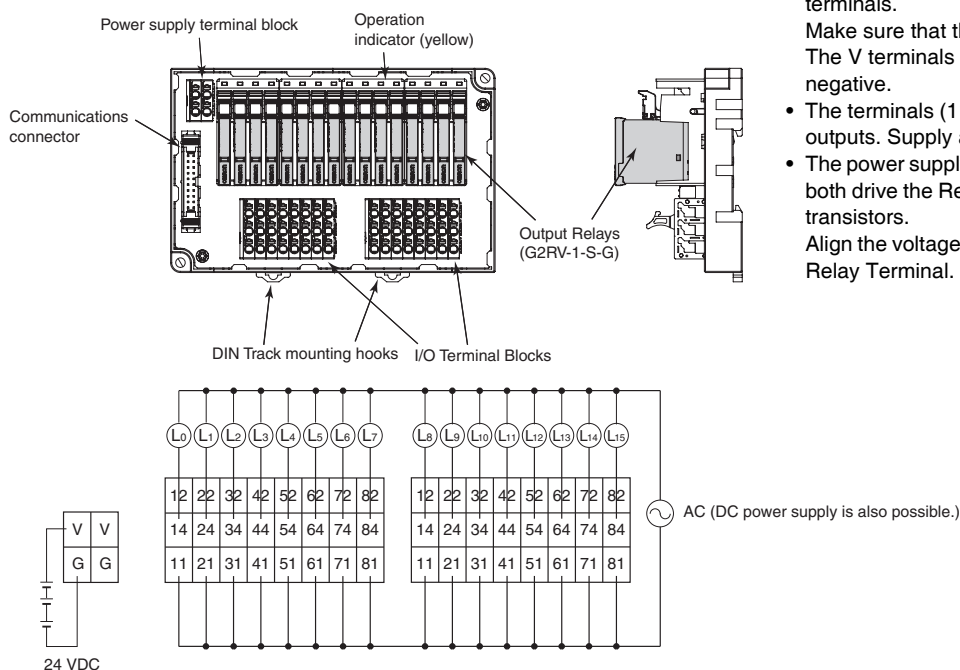
I/O Terminal Blocks

24 VDC

- Supply a power supply that meets the voltage specifications for both the Relays and I/O Relay Terminal to the V and G terminals.
  Make sure that the polarity is correct.
  The V terminals are positive and the G terminals are negative.
- Supply the rated voltage (24 VDC) of the Controller's input circuit to the power supply input terminals (V and G). Use a power supply with low noise.

## Output Relay Terminal

**G70V-SOC16P**
**G70V-SOC16P-1**



Power supply terminal block

Operation indicator (yellow)

Communications connector

Output Relays (G2RV-1-S-G)

DIN Track mounting hooks

I/O Terminal Blocks

AC (DC power supply is also possible.)

24 VDC

- Supply a power supply that meets the voltage specifications for both the Relays and I/O Relay Terminal to the V and G terminals.
  Make sure that the polarity is correct.
  The V terminals are positive and the G terminals are negative.
- The terminals (11 to 81, 12 to 82, and 14 to 84) are contact outputs. Supply a suitable power supply for the loads.
- The power supply input terminals (V and G) supply power to both drive the Relays and to operate the Controller's output transistors.
  Align the voltage specifications of the Controller and the I/O Relay Terminal.

# Safety Precautions

**Be sure to read the *Common Precautions for I/O Relay Terminal* in the website at the following URL: http://www.ia.omron.com/.**

## Warning Indications

| Precautions for Safe Use | Supplementary comments on what to do or avoid doing, to use the product safely. |
|---|---|
| Precautions for Correct Use | Supplementary comments on what to do or avoid doing, to prevent failure to operate, malfunction, or undesirable effects on product performance. |

### Precautions for Safe Use

## Transportation

- Do not transport the I/O Relay Terminal under the following locations. Doing so may occasionally result in damage, malfunction, or deterioration of performance characteristics.
  - Locations subject to water or oil
  - Locations subject to high temperature or high humidity
  - Locations subject to condensation due to rapid changes in temperature

## Operating and Storage Environments

- Do not use or store the I/O Relay Terminal in the following locations. Doing so may result in damage, malfunction, or deterioration of performance characteristics.
  - Locations subject to rainwater or water splashes
  - Locations subject to exposure to water, oil, or chemicals
  - Locations subject to high temperature or high humidity
  - Locations subject to ambient storage temperatures outside the range −40 to 65°C
  - Locations subject to ambient operating temperatures outside the range −40 to 55°C
  - Locations subject to relative humidity outside the range 35% to 85% or locations in which condensation may occur due to rapid changes in temperature
  - Locations subject to corrosive gases or inflammable gases
  - Locations subject to dust, salts, or iron, or locations where there is salt damage
  - Locations subject to direct sunlight
  - Locations subject to shock or vibration

## Installation and Mounting

- Mount the I/O Relay Terminal in the specified direction. Otherwise excessive heat generated by the I/O Relay Terminal may occasionally cause burning.
- Mount the I/O Relay Terminal firmly to a DIN Track. Otherwise, the I/O Relay Terminal may fall off.
- Do not handle the I/O Relay Terminal with oily or dusty (especially iron dust) hands.
- Make sure that there is no excessive ambient temperature rise due to the heat generation of the I/O Relay Terminal. If the I/O Relay Terminal is mounted inside a panel, install a fan so that the interior of the panel is fully ventilated.

## Installation and Wiring

- Use wires that are suited to the load current and voltage. Otherwise, excessive heat generated by the wires may cause burning or may cause the wire covering to melt, possibly leading to electric shock.
- Do not use wires with a damaged outer covering. Otherwise, it may result in electric shock or ground leakage.
- Do not wire any wiring in the same duct or conduit as power or high-tension lines. Otherwise, inductive noise may damage the I/O Relay Terminal or cause it to malfunction.
- Do not apply a voltage or current that exceeds the rating to any terminal. Doing so may result in failure or burning.

## Push-In Plus Terminal Blocks

- Do not wire anything to the release holes.
- Do not tilt or twist a flat-blade screwdriver while it is inserted into a release hole on the terminal block. The terminal block may be damaged.
- Insert a flat-blade screwdriver into the release holes at an angle. The terminal block may be damaged if you insert the screwdriver straight in.
- Do not allow the flat-blade screwdriver to fall out while it is inserted into a release hole.
- Do not bend a wire past its natural bending radius or pull on it with excessive force. Doing so may cause the wire disconnection.
- Do not insert more than one wire into each terminal insertion hole.
- To prevent wiring materials from smoking or ignition, use the wiring materials given in the following table.

| Recommended wire gauge | Stripping length | |
|---|---|---|
| | Ferrules used | Ferrules not used |
| 0.25 to 1.5mm$^2$/AWG24 to 16 | 10 mm | 8 mm |

## Application

- Select a load within the rated values. Not doing so may result in malfunction, failure, or burning.
- The I/O Relay Terminal may occasionally rupture if short-circuit current flows. As protection against accidents due to short-circuiting, be sure to install protective devices, such as fuses and no-fuse breakers, on the power supply side.
- Use a power supply within the rated frequencies. Otherwise, malfunction, failure, or burning may occasionally occur.
- Minor electric shock may occasionally occur. Always turn OFF the power supply before performing wiring.

## Precautions for Correct Use

- Do not drop the I/O Relay Terminal or subject it to abnormal vibration or shock during transportation or mounting. Doing so may result in deterioration of performance, malfunction, or failure.
- Do not transport an I/O Relay Terminal when it is not packaged. Damage or failure may occur.
- Use a power supply with low noise.

### Push-In Plus Terminal Blocks

#### 1. Connecting Wires to the Push-In Plus Terminal Block
#### Part Names of the Terminal Block



Release hole
Terminal (Insertion) hole
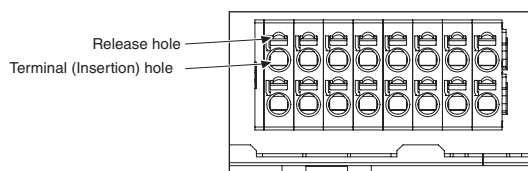
#### Connecting Wires with Ferrules and Solid Wires

Insert the solid wire or ferrule straight into the terminal block until the end strikes the terminal block.



Release hole
Terminal (Insertion) hole
Ferrules and solid wires
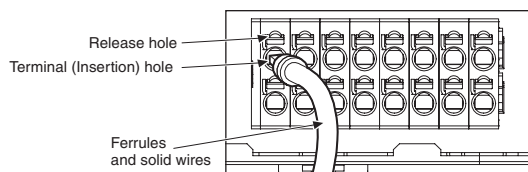
- If a wire is difficult to connect because it is too thin, use a flat-blade screwdriver in the same way as when connecting stranded wire.
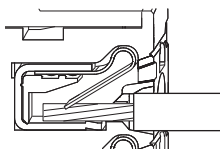
#### Connecting Stranded Wires

Use the following procedure to connect the wires to the terminal block.
1. Hold a flat-blade screwdriver at an angle and insert it into the release hole.
   The angle should be between 10° and 15°. If the flat-blade screwdriver is inserted correctly, you will feel the spring in the release hole.
2. With the flat-blade screwdriver still inserted into the release hole, insert the wire into the terminal hole until it strikes the terminal block.
3. Remove the flat-blade screwdriver from the release hole.



Flat-blade screwdriver
10 to 15°
Stranded Wires
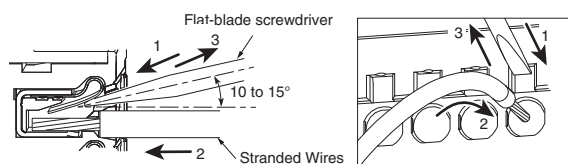
#### Checking Connections

- After the insertion, pull gently on the wire to make sure that it will not come off and the wire is securely fastened to the terminal block.
- To prevent short circuits, insert the stripped part of a stranded or solid wire or the conductor part of a ferrule until it is hidden inside the terminal insertion hole. (See the following diagram.)



#### 2. Removing Wires from the Push-In Plus Terminal Block

Use the following procedure to remove wires from the terminal block. The same method is used to remove stranded wires, solid wires, and ferrules.
1. Hold a flat-blade screwdriver at an angle and insert it into the release hole.
2. With the flat-blade screwdriver still inserted into the release hole, remove the wire from the terminal insertion hole.
3. Remove the flat-blade screwdriver from the release hole.



Flat-blade screwdriver
10 to 15°
Wire
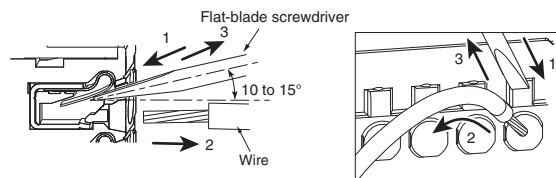
#### 3. Recommended Ferrules and Crimp Tools
#### Recommended ferrules

| Applicable wire | | Ferrule Conduct or length (mm) | Recommended ferrules | | |
| --- | --- | --- | --- | --- | --- |
| (mm²) | (AWG) | | Phoenix Contact product | Weidmuller product | Wago product |
| 0.25 | 24 | 8 | AI0.25-8 | H0.25/12 | FE-0.25-8N-YE |
| 0.34 | 22 | 8 | AI0.34-8 | H0.34/12 | FE-0.34-8N-TQ |
| 0.5 | 20 | 8 | AI0.5-8 | H0.5/14 | FE-0.5-8N-WH |
| 0.75 | 18 | 8 | AI0.75-8 | H0.75/14 | FE-0.75-8N-GY |
| 1/1.25 | 18/17 | 8 | AI1-8 | H1.0/14 | FE-1.0-8N-RD |
| 1.25/1.5 | 17/16 | 8 | AI1.5-8 | H1.5/14 | FE-1.5-8N-BK |
| Recommended crimp tool | | | CRIMPFOX6 CRIMPFOX6T-F CRIMPFOX10S | PZ6 roto | Variocrimp4 |

**Note: 1.** Make sure that the outer diameter of the wire coating is smaller than the inner diameter of the insulation sleeve of the recommended ferrule.
**2.** Make sure that the ferrule processing dimensions conform to the following figures.
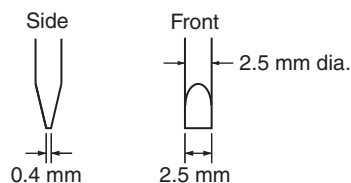


8 mm
1.9 mm max.
2.6 mm max.
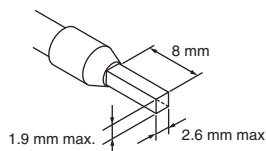
#### Recommended Flat-blade Screwdriver

Use a flat-blade screwdriver to connect and remove wires.
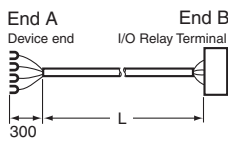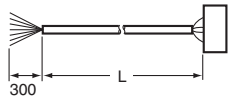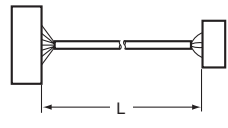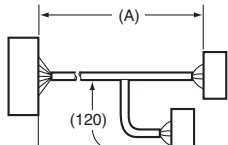Use the following flat-blade screwdriver.
The following table shows manufacturers and models as of 2015/Dec.
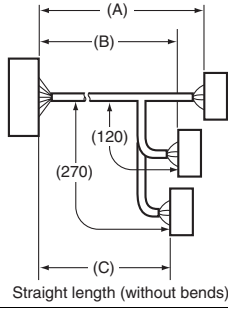


Side
Front
2.5 mm dia.
0.4 mm
2.5 mm
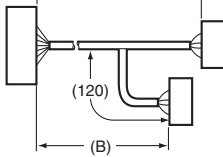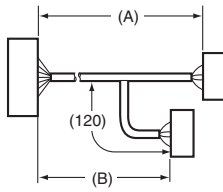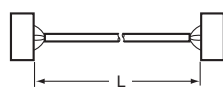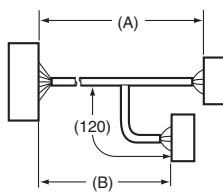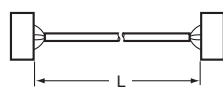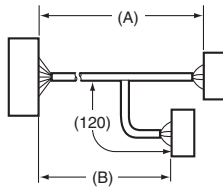
| Model | Manufacturer |
| --- | --- |
| ESD0.40×2.5 | Wera |
| SZS 0.4×2.5 SZF 0-0.4×2.5 ∗ | Phoenix Contact |
| 0.4×2.5×75 302 | Wiha |
| AEF.2.5×75 | Facom |
| 210-719 | Wago |
| SDI 0.4×2.5×75 | Weidmuller |

∗ OMRON's exclusive purchase model XW4Z-00B is available to order as SZF 0-0.4 × 2.5 (manufactured by Phoenix Contact).

# Applicable Cables

| Name | Appearance | | Cable length L (mm) | | | Connecting Cables | Applicable Connectors |
|---|---|---|---|---|---|---|---|
| Cables with Loose Wires and Crimp Terminals XW2Z-RY□C | 16 I/O points | End A Device end — End B I/O Relay Terminal — L — 300 | 1,000 | | | **XW2Z-RY100C** | Various devices |
| | | | 1,500 | | | **XW2Z-RY150C** | |
| | | | 2,000 | | | **XW2Z-RY200C** | |
| | | | 3,000 | | | **XW2Z-RY300C** | |
| | | | 5,000 | | | **XW2Z-RY500C** | |
| Cables with Loose Wires XW2Z-RA□C | 16 I/O points | — L — 300 | 2,000 | | | **XW2Z-RA200C** | Various devices |
| | | | 5,000 | | | **XW2Z-RA500C** | |
| Cables with Connectors (1:1) XW2Z-R□C | 16 I/O points | — L — | 1,000 | | | **XW2Z-R100C** | PLC I/O Units with Fujitsu connectors (1:1) |
| | | | 1,500 | | | **XW2Z-R150C** | |
| | | | 2,000 | | | **XW2Z-R200C** | |
| | | | 3,000 | | | **XW2Z-R300C** | |
| | | | 5,000 | | | **XW2Z-R500C** | |
| Cables with Connectors (1:2) XW2Z-RI□C-□, XW2Z-RO□C-□ | 32 input points | (A) (120) (B) Straight length (without bends) | (A) 1,000 | (B) 750 | | **XW2Z-RI100C-75** | PLC I/O Units with Fujitsu connectors (1:2) |
| | | | (A) 1,500 | (B) 1,250 | | **XW2Z-RI150C-125** | |
| | | | (A) 2,000 | (B) 1,750 | | **XW2Z-RI200C-175** | |
| | | | (A) 3,000 | (B) 2,750 | | **XW2Z-RI300C-275** | |
| | | | (A) 5,000 | (B) 4,750 | | **XW2Z-RI500C-475** | |
| | 32 output points | | (A) 1,000 | (B) 750 | | **XW2Z-RO100C-75** | |
| | | | (A) 1,500 | (B) 1,250 | | **XW2Z-RO150C-125** | |
| | | | (A) 2,000 | (B) 1,750 | | **XW2Z-RO200C-175** | |
| | | | (A) 3,000 | (B) 2,750 | | **XW2Z-RO300C-275** | |
| | | | (A) 5,000 | (B) 4,750 | | **XW2Z-RO500C-475** | |
| Cables with Connectors (1:3) XW2Z-R□C-□-□ | 48 I/O points | (A) (B) (120) (270) (C) Straight length (without bends) | (A) 1,500 | (B) 1,250 | (C) 1,000 | **XW2Z-R150C-125-100** | PLC I/O Units with Fujitsu connectors (1:3) |
| | | | (A) 2,000 | (B) 1,750 | (C) 1,500 | **XW2Z-R200C-175-150** | |
| | | | (A) 3,000 | (B) 2,750 | (C) 2,500 | **XW2Z-R300C-275-250** | |
| Cables with Connectors (1:1) XW2Z-RI□C, XW2Z-RO□C | 16 input points | — L — | 250 | | | **XW2Z-RI25C** | PLC I/O Units with MIL connectors (1:1) |
| | | | 500 | | | **XW2Z-RI50C** | |
| | 16 output points | | 250 | | | **XW2Z-RO25C** | |
| | | | 500 | | | **XW2Z-RO50C** | |
| Cables with Connectors (1:2) XW2Z-RI□-□-D1, XW2Z-RO□-□-D1, XW2Z-RM□-□-D1, XW2Z-RI□-□-D2, XW2Z-RM□-□-D2 | 32 input points | (A) (120) (B) Straight length (without bends) | (A) 500 | (B) 250 | | **XW2Z-RI50-25-D1** | PLC I/O Units with MIL connectors (1:2) |
| | | | (A) 750 | (B) 500 | | **XW2Z-RI75-50-D1** | |
| | 32 output points | | (A) 500 | (B) 250 | | **XW2Z-RO50-25-D1** | |
| | | | (A) 750 | (B) 500 | | **XW2Z-RO75-50-D1** | |
| | 16 input points/ 16 output points | | (A) 500 | (B) 250 | | **XW2Z-RM50-25-D1** | |
| | | | (A) 750 | (B) 500 | | **XW2Z-RM75-50-D1** | |
| | 32 input points | | (A) 500 | (B) 250 | | **XW2Z-RI50-25-D2** | PLC I/O Units with MIL connectors (1:2) |
| | | | (A) 750 | (B) 500 | | **XW2Z-RI75-50-D2** | |
| | 16 input points/ 16 output points | | (A) 500 | (B) 250 | | **XW2Z-RM50-25-D2** | |
| | | | (A) 750 | (B) 500 | | **XW2Z-RM75-50-D2** | |

| Name | | Appearance | Cable length L (mm) | | Connecting Cables | Applicable Connectors |
|---|---|---|---|---|---|---|
| Mitsubishi Electric PLC Connecting Cables XW2Z-RI☐C-☐-MN, XW2Z-RO☐C-☐-MN | 32 input points | End A (Device end) — End B (I/O Relay Terminal) (A) (120) (B) Straight length (without bends) | (A) 1,000 | (B) 750 | XW2Z-RI100C-75-MN | Mitsubishi Electric PLCs with 32-point connectors (1:2) For inputs: AX42, A1SX41, A1SX42 For outputs: AY42, A1SY41, A1SY42 |
| | | | (A) 1,500 | (B) 1,250 | XW2Z-RI150C-125-MN | |
| | | | (A) 2,000 | (B) 1,750 | XW2Z-RI200C-175-MN | |
| | | | (A) 3,000 | (B) 2,750 | XW2Z-RI300C-275-MN | |
| | 32 output points | | (A) 1,000 | (B) 750 | XW2Z-RO100C-75-MN | |
| | | | (A) 1,500 | (B) 1,250 | XW2Z-RO150C-125-MN | |
| | | | (A) 2,000 | (B) 1,750 | XW2Z-RO200C-175-MN | |
| | | | (A) 3,000 | (B) 2,750 | XW2Z-RO300C-275-MN | |
| Schneider Electric PLC Connecting Cables XW2Z-R☐C-SCH-☐ | 32 input points | (A) (120) (B) Straight length (without bends) | 500 | | XW2Z-R050C-SCH-A | Schneider Electric PLCs with 32-point connectors (1:2) For inputs: 140 DDI 353 00 For outputs: 140 DDO 353 00 |
| | | | 1,000 | | XW2Z-R100C-SCH-A | |
| | | | 2,000 | | XW2Z-R200C-SCH-A | |
| | | | 3,000 | | XW2Z-R300C-SCH-A | |
| | | | 5,000 | | XW2Z-R500C-SCH-A | |
| | 32 output points | | 500 | | XW2Z-R050C-SCH-B | |
| | | | 1,000 | | XW2Z-R100C-SCH-B | |
| | | | 2,000 | | XW2Z-R200C-SCH-B | |
| | | | 3,000 | | XW2Z-R300C-SCH-B | |
| | | | 5,000 | | XW2Z-R500C-SCH-B | |
| | 16 input points | L | 500 | | XW2Z-R050C-SCH-C | Schneider Electric PLCs with 16-point connectors (1:1) For inputs: BMX DDI 1602 For outputs: BMX DDO 1602 |
| | | | 1,000 | | XW2Z-R100C-SCH-C | |
| | | | 2,000 | | XW2Z-R200C-SCH-C | |
| | | | 3,000 | | XW2Z-R300C-SCH-C | |
| | | | 5,000 | | XW2Z-R500C-SCH-C | |
| | 16 output points | | 500 | | XW2Z-R050C-SCH-D | |
| | | | 1,000 | | XW2Z-R100C-SCH-D | |
| | | | 2,000 | | XW2Z-R200C-SCH-D | |
| | | | 3,000 | | XW2Z-R300C-SCH-D | |
| | | | 5,000 | | XW2Z-R500C-SCH-D | |
| Siemens PLC Connecting Cables XW2Z-R☐C-SIM-☐ | 32 input points | (A) (120) (B) Straight length (without bends) | 500 | | XW2Z-R050C-SIM-A | Siemens PLCs with 32-point connectors (1:2) For inputs: 6ES7 321-1BL00-0AA0 For outputs: 6ES7 322-1BL00-0AA0 |
| | | | 1,000 | | XW2Z-R100C-SIM-A | |
| | | | 2,000 | | XW2Z-R200C-SIM-A | |
| | | | 3,000 | | XW2Z-R300C-SIM-A | |
| | | | 5,000 | | XW2Z-R500C-SIM-A | |
| | 32 output points | | 500 | | XW2Z-R050C-SIM-B | |
| | | | 1,000 | | XW2Z-R100C-SIM-B | |
| | | | 2,000 | | XW2Z-R200C-SIM-B | |
| | | | 3,000 | | XW2Z-R300C-SIM-B | |
| | | | 5,000 | | XW2Z-R500C-SIM-B | |
| | 16 input points | L | 500 | | XW2Z-R050C-SIM-C | Siemens PLCs with 16-point connectors (1:1) For inputs: 6ES7 321-1BH02-0AA0 |
| | | | 1,000 | | XW2Z-R100C-SIM-C | |
| | | | 2,000 | | XW2Z-R200C-SIM-C | |
| | | | 3,000 | | XW2Z-R300C-SIM-C | |
| | | | 5,000 | | XW2Z-R500C-SIM-C | |
| | 32 input points | (A) (120) (B) Straight length (without bends) | 500 | | XW2Z-R050C-SIM-D | Siemens PLCs with 32-point connectors (1:2) For inputs: 6ES7 421-1BL-0AA0 For outputs: 6ES7 422-1BL-0AA0 |
| | | | 1,000 | | XW2Z-R100C-SIM-D | |
| | | | 2,000 | | XW2Z-R200C-SIM-D | |
| | | | 3,000 | | XW2Z-R300C-SIM-D | |
| | | | 5,000 | | XW2Z-R500C-SIM-D | |
| | 32 output points | | 500 | | XW2Z-R050C-SIM-E | |
| | | | 1,000 | | XW2Z-R100C-SIM-E | |
| | | | 2,000 | | XW2Z-R200C-SIM-E | |
| | | | 3,000 | | XW2Z-R300C-SIM-E | |
| | | | 5,000 | | XW2Z-R500C-SIM-E | |

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