

Relay Sockets

# SJ Series

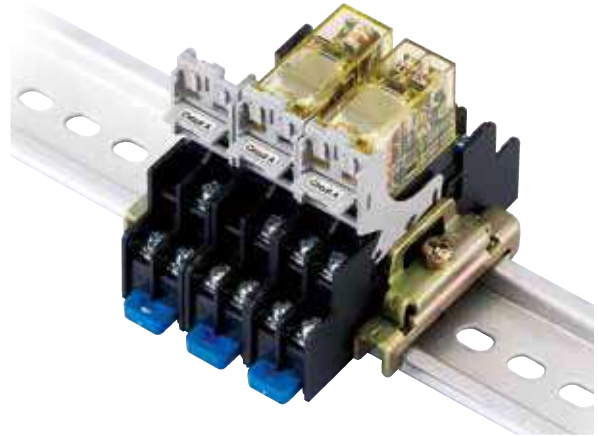


Slim, space-saving relay sockets. Release lever with an integrated marking plate is provided.



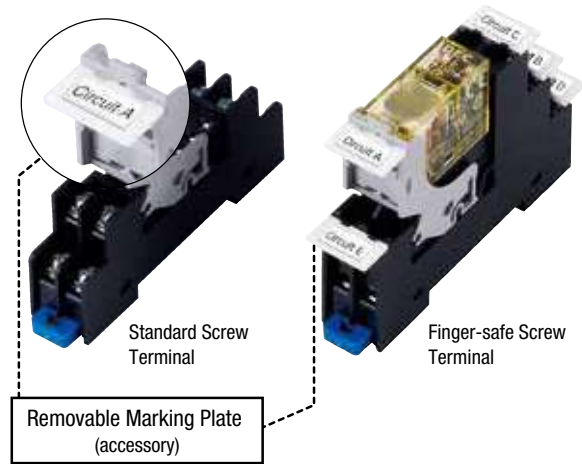
• See website for details on approvals and standards.

### Marking Plate integrated with Release Lever



### Removable Marking Plate Available

\* Can be attached to the release lever and socket



# Identify relays/connections easily using the marking plate.

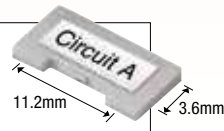
## Marking Plate integrated with Release Lever

1 Cut the tab using nippers. (A)

2 Lift the marking plate. (B)

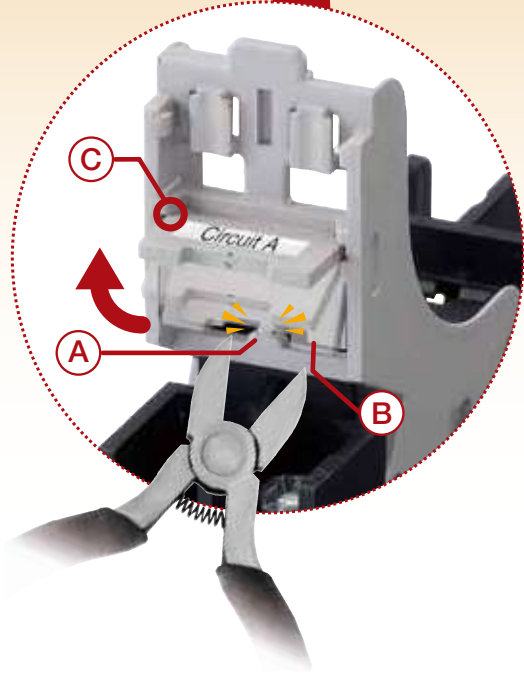
3 Lock the marking plate into grooves. (C)

4 Marking area  
 \* The specified dimension is the allowable marking area.



\* See H-044 for dimensions.

Marking plate integrated with release lever

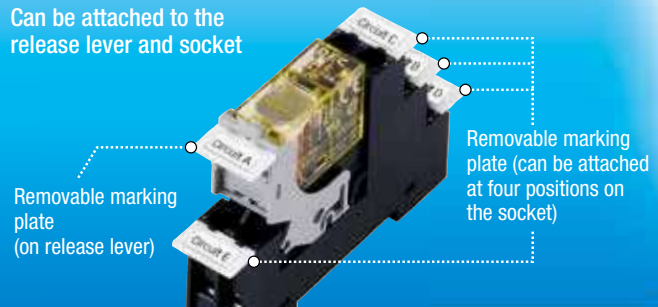


## Removable Marking Plate

Standard Screw Terminal  
 Can be attached to the release lever



Finger-safe Screw Terminal  
 Can be attached to the release lever and socket



Coil voltage, signal name, circuit, etc. can be marked on the removable marking plate for easy identification of connections.



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# SJ Series Relay Sockets

Slim, space-saving relay sockets.

Release lever with integrated marking plate allows for easy maintenance in narrow spaces.

Shape				
	Standard Screw Terminal (1 pole)		Finger-safe Screw Terminal (2 pole)	
Terminal Style	1-pole		2-pole	
Terminal No. Color	Black	White	Black	White
Standard Screw Terminal	SJ1S-05B	SJ1S-05BW	SJ2S-05B	SJ2S-05BW
Finger-safe Screw Terminal	SJ1S-07L	SJ1S-07LW	SJ2S-07L	SJ2S-07LW

Note: Release lever is supplied with each socket.

## Specifications

Model	SJ1S	SJ2S
Rated Current	12A	8A
Rated Insulation Voltage	250V AC/DC	
Applicable Wire	2 mm <sup>2</sup> maximum (14 AWG)	
Applicable Crimping Terminal	2 mm <sup>2</sup> × 2	
Recommended Tightening Torque	1.0 N·m	
Screw Terminal Style	M3 slotted Phillips screw	
Terminal Strength	Wire tensile strength: 50N minimum	
Insulation Resistance	100MΩ minimum (500V DC megger)	
Dielectric Strength	Between live and dead metal parts: 2000V AC, 1 minute	
	Between contact and coil: 4000V AC, 1 minute	
	Between contacts of the same pole: 1000V AC, 1 minute	
	Between contacts of the different poles: 3000V AC, 1 minute	
Vibration Resistance	Damage limits: 90 m/s <sup>2</sup> Resonance: 10 to 55 Hz, amplitude 0.75 mm	
Shock Resistance	Damage limits: 1000 m/s <sup>2</sup>	
Operating Temperature	-40 to +70°C (no freezing)	
Storage Temperature	-55 to +85°C (no freezing)	
Operating Humidity	5 to 85% RH (no condensation)	
Storage Humidity	5 to 85% RH (no condensation)	
Degree of Protection	IP20 (finger-safe screw terminal)	
Weight (approx.)	30g	34g

## Applicable Relay

Terminal Style	1-pole		2-pole	
	Socket	Relay	Socket	Relay
Standard Screw Terminal	SJ1S-05B SJ1S-05BW	RJ1S	SJ2S-05B SJ2S-05BW	RJ2S RJ22S
Finger-safe Screw Terminal	SJ1S-07L SJ1S-07LW		SJ2S-07L SJ2S-07LW	

## Applicable Crimping Terminals

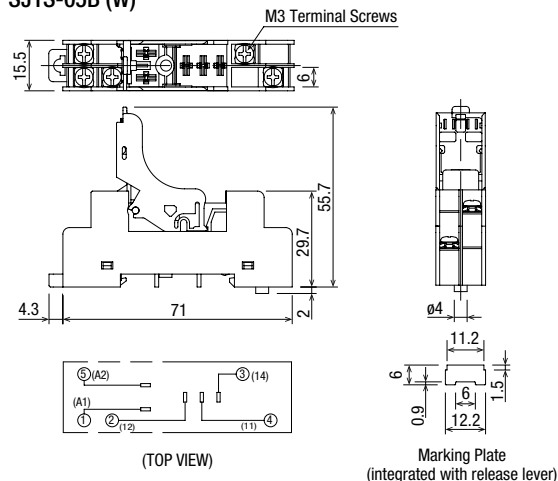
Standard Screw Terminal	Finger-safe Screw Terminal

Note: Ring tongue terminals cannot be used on finger-safe sockets.

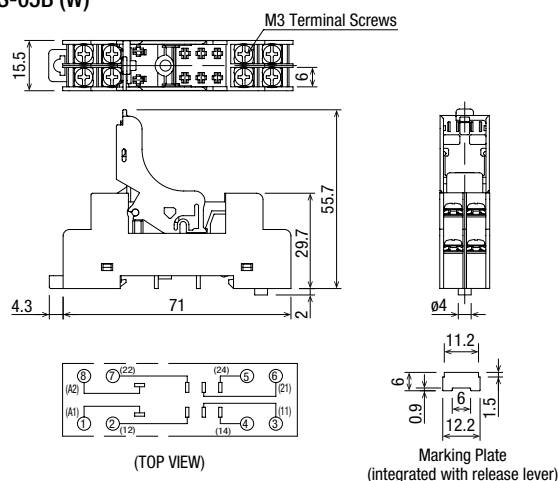
Dimensions

All dimensions in mm

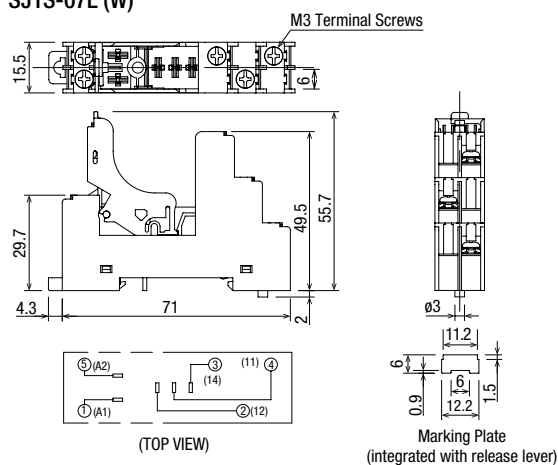
SJ1S-05B (W)



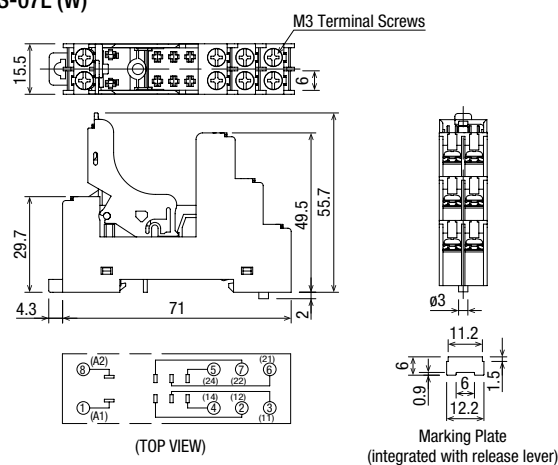
SJ2S-05B (W)



SJ1S-07L (W)



SJ2S-07L (W)



Replacement Parts

When ordering, specify the Ordering No.

Description	Material	Part No.	Ordering Part No.	Package Quantity	Dimensions
<p>Release Lever (with integrated marking plate)</p>	Plastic (gray)	SJ9Z-CM	SJ9Z-CMPN05	5	<p>15.3mm width, 38.5mm height, 28.1mm base width. When not using marking plate.</p>

Accessories

When ordering, specify the Ordering No.

Description	Material	Part No.	Ordering Part No.	Package Quantity	Dimensions
<p>Removable Marking Plate</p>	Plastic (white)	SJ9Z-PW	SJ9Z-PWPN10	10	<p>15.2mm width, 8.6mm height, 0.75mm hole offset, 1.2mm hole depth. Marking area: 15.2 x 7.25 mm.</p>
<p>Jumper</p>	Nickel-coated brass with polypropylene coating	For 2 sockets	SJ9Z-JF2	5	Terminal centers: 15.5mm Rated current: 12A Ensure that the total current to the jumper does not exceed the maximum current.
		For 5 sockets	SJ9Z-JF5		
		For 8 sockets	SJ9Z-JF8		
		For 10 sockets	SJ9Z-JF10		

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# SJ Series Relay Sockets

## Safety Precautions

- Turn off power to the relay and the socket before starting installation, removal, wiring, maintenance, and inspection of the relays. Failure to turn power off may cause electrical shock or fire hazard.
- Use wires of the proper size to meet the voltage and current requirements.

- Make sure that relay and output equipment are wired correctly. Incorrect wiring causes overheat resulting in possible fire hazard.
- Prevent metal fragments and pieces of wire from dropping inside the socket. Ingress of such fragments and chips may cause fire hazard, damage, or malfunction.

## Instructions

### Installing relays

The relay is installed on the socket using the release lever. Leaf spring is not necessary.

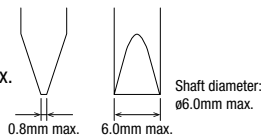
### Rail Mounting and Removing

Do not mount or remove the socket in cold temperature (below  $-20^{\circ}\text{C}$ ), otherwise the socket may be damaged.

### Applicable Screwdriver

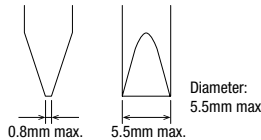
#### Standard Screw Terminal

- Phillips screwdriver: PH2, shaft diameter  $\phi 6.0$  mm max.
- Flat blade screwdriver



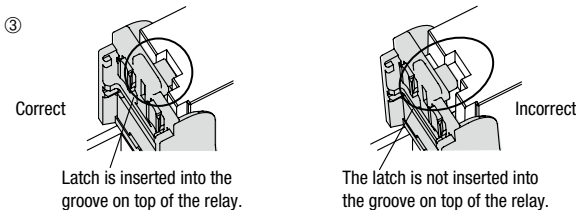
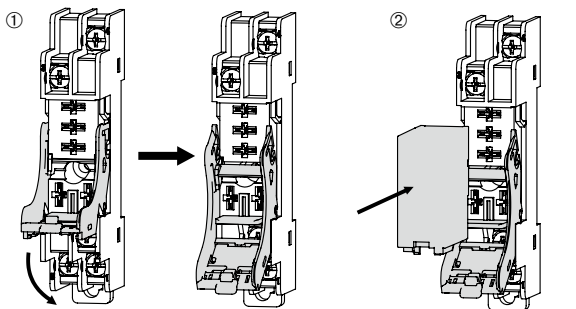
#### Finger-safe Screw Terminal

Phillips:  $\phi 5.5$  mm maximum  
Slotted: Shown at right



### Installing relays

1. Unlock the release lever by pulling down as shown with arrow ①.
2. Press the relay against the socket as shown with arrow ②. Make sure that the relay is firmly in place.
3. Confirm that the relay is securely installed in the socket. When installed properly, the relay and the socket look as shown in ③

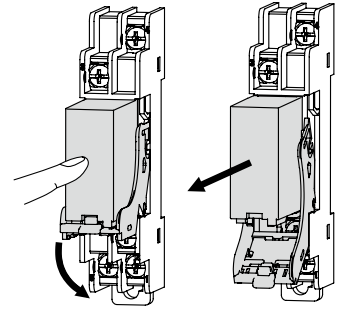


### Caution

Ensure that the relay is installed in the socket completely.

### Removing the relay

- ① Lightly press the relay to prevent it from falling off.
- ② Pull down the release lever to the direction shown by the arrow until it touches the socket. Pull down further, and the lever will be detached from the socket.



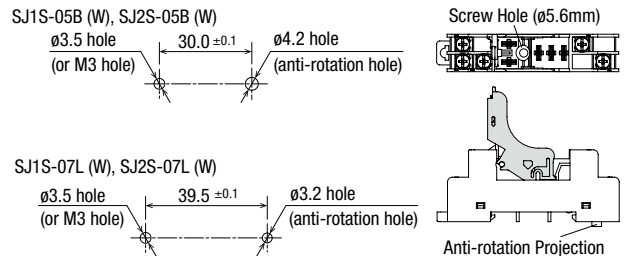
### Caution

Make sure that wire or finger is not caught between the release lever and socket. Because release lever is removable, make sure not to apply excessive force. Otherwise the relay may fall and result in damage.

### Panel Mounting

Insert the anti-rotation projection into the anti-rotation hole. Mount the socket onto the panel using M3 screws (not provided). Use a screwdriver with diameter of  $\phi 5.5$ mm maximum.

### Mounting Hole Layout



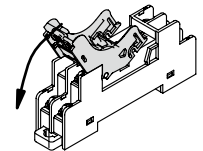
Tighten the mounting screws to a torque of 1.0 N·m maximum.

Tightening with higher torque will damage the socket.

The round rib projecting from the socket bottom prevents rotation when the socket is mounted on the panel directly. Ensure to insert the rib into the anti-rotation hole, otherwise the socket may be damaged.

### Removing the Release Lever

Pull down the release lever to the direction shown by the arrow until it touches the socket. Pull down further, and the release lever will be detached from the socket.



### Caution

Make sure that the relay has been removed from the socket before removing the release lever. If the release lever is removed when the relay is installed on the socket, the relay may fall out.

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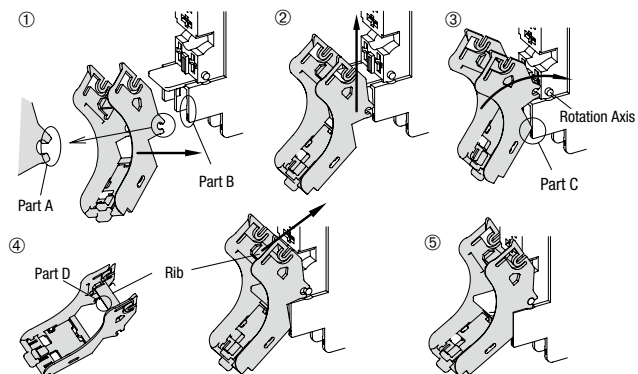
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## Instructions

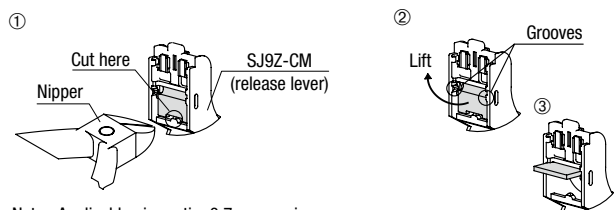
### Installing the Release Lever

- ① Attach part A to part B.
- ② Slide the release lever in the direction of the arrow until part A runs out of part B.
- ③ Rotate the release lever, with the center of rotation at part C until part A touches the rotation axis.
- ④ Push the rib of the release lever against the socket.
- ⑤ Release lever is installed.

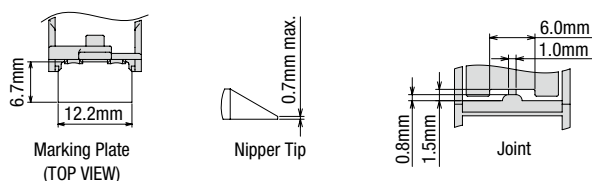


### Using Marking Plate integrated with SJ9M-CM Release Lever

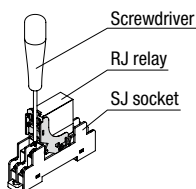
- ① Using the nippers, cut the joint (Note).
- ② Lift the marking plate as shown with the arrow.
- ③ Latch the marking plate into the grooves.



Note : Applicable nipper tip: 0.7mm maximum.  
Make sure to cut the joint before installing the relay.

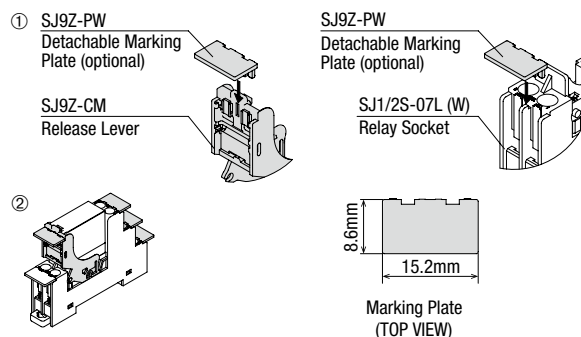


The integrated marking plate must be retracted to the original position when wiring. The SJ9Z-CM integrated marking plate can be lifted and retracted for 50 times maximum.



### Using SJ9Z-PW Removable Marking Plate (optional)

- ① Insert the marking plate into the slot on the release lever or socket.
- Note: SJ9Z-PW removable marking plate cannot be installed on the SJ1S-05B (W)/SJ2B-05B (W) socket.
- ② The marking plate is installed.



### Current

Check the current of relay and ensure that the current is maintained below the values shown in the following table.

Model		SJ1S-05B			SJ1S-07L			SJ2S-05B			SJ2S-07L		
Operating temperature highest limit		70°C	55°C	40°C	70°C	55°C	40°C	70°C	55°C	40°C	70°C	55°C	40°C
Single mount		12A			12A			8A			8A		
Collective mount	When DC relay is mounted	11A (*1)	12A	10A (*2)	12A	7A (*4)	8A	6A (*5)	7A (*3)	8A			
	When AC relay is mounted	— (*1)	12A	— (*2)	11A (*1)	12A	— (*4)	8A	— (*5)	7A (*3)	8A		

- \*1) 12A when there is 5mm or more space between adjacent socket.
- \*2) 12A when there is 10mm or more space between adjacent socket.
- \*3) 8A when there is 5mm or more space between adjacent socket.
- \*4) 8A when there is 10mm or more space between adjacent socket.
- \*5) 8A when there is 15mm or more space between adjacent socket.

# Ordering Terms and Conditions

Thank you for using IDEC Products.

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Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.
  - i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
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  - iv. The failure was caused by a software program of a party other than IDEC
  - v. The product was used outside of its original purpose
  - vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs
  - vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from IDEC
  - viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

## 5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

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- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

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