Relay Sockets

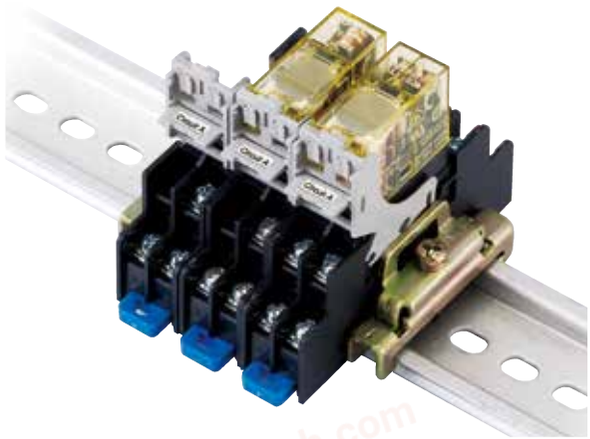
SJ Series



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

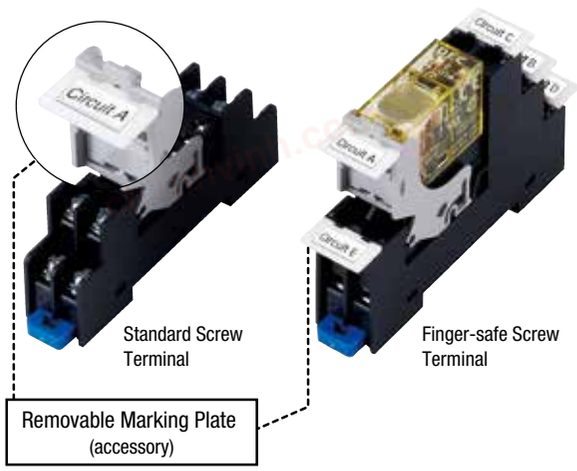
• See website for details on approvals and standards.

Marking Plate integrated with Release Lever



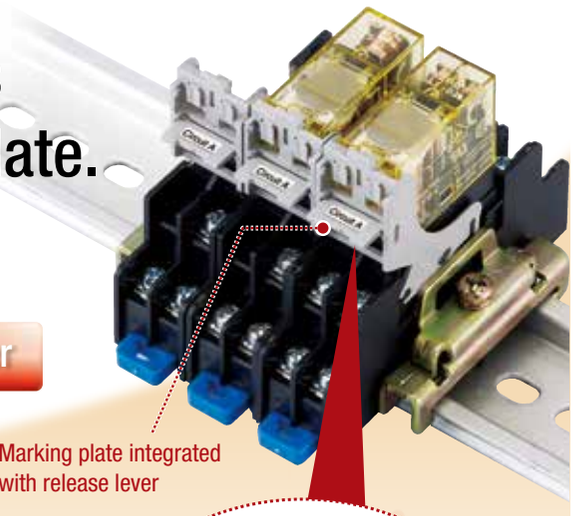
Removable Marking Plate Available

* Can be attached to the release lever and socket



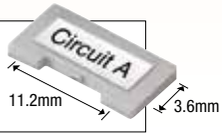
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Identify relays/connections easily using the marking plate.

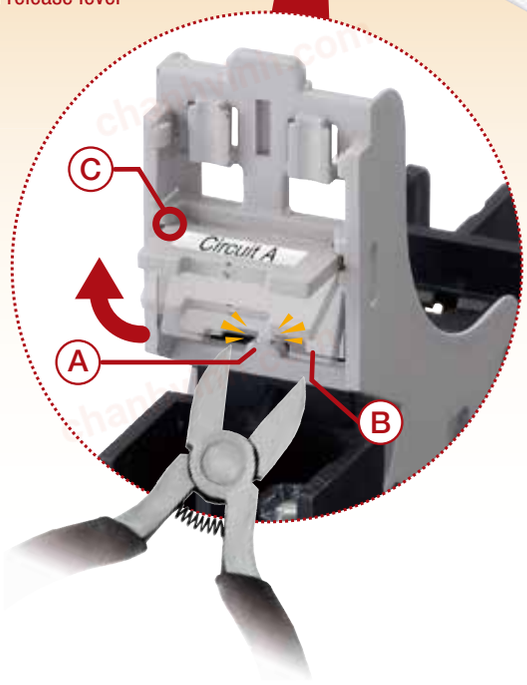


Marking Plate integrated with Release Lever

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.



Removable Marking Plate

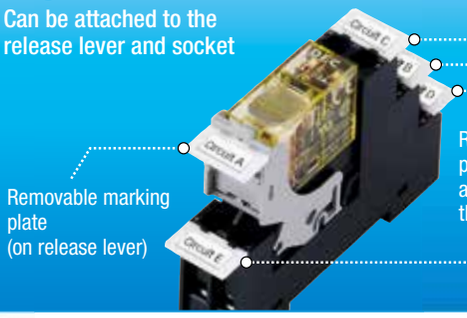
Standard Screw Terminal

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.





SJ9Z-PW
Removable Marking Plate (accessory)

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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.

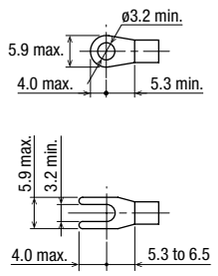
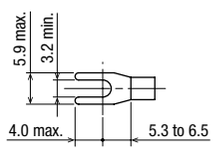
Specifications

Model	SJ1S	SJ2S
Rated Current	12A	8A
Rated Insulation Voltage	250V AC/DC	
Applicable Wire	2 mm² maximum (14 AWG)	
Applicable Crimping Terminal	2 mm² × 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/s² Resonance: 10 to 55 Hz, amplitude 0.75 mm	
Shock Resistance	Damage limits: 1000 m/s²	
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.

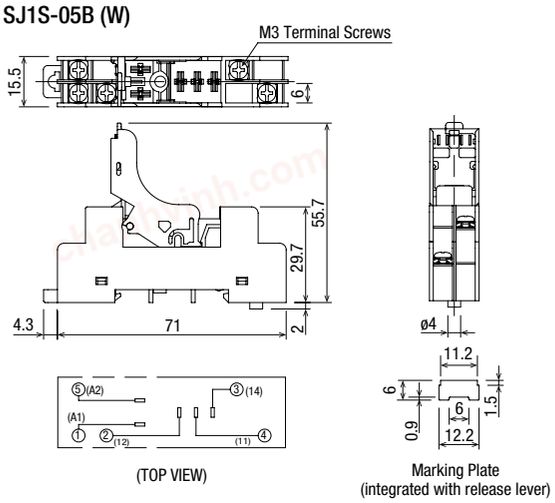
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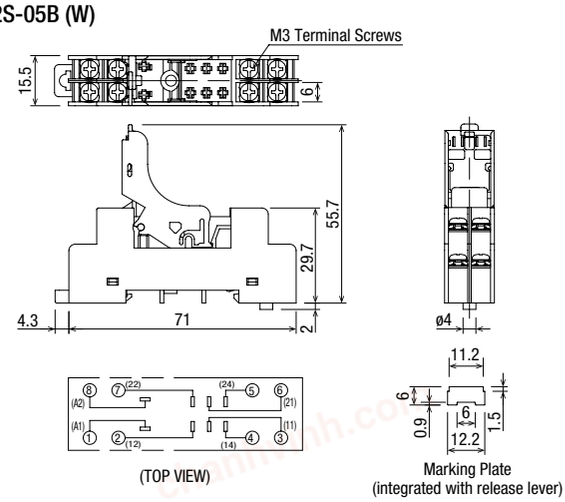
Dimensions

All dimensions in mm

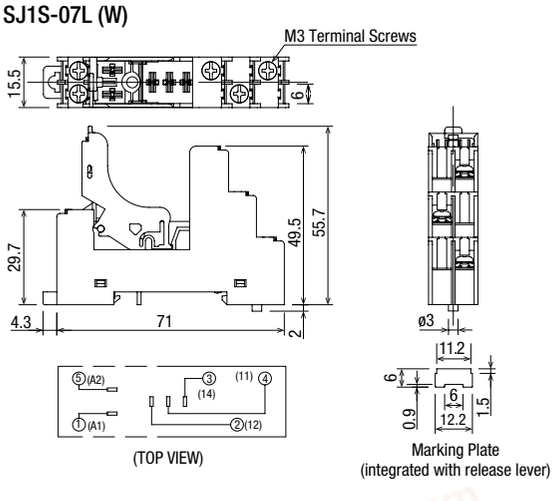
SJ1S-05B (W)



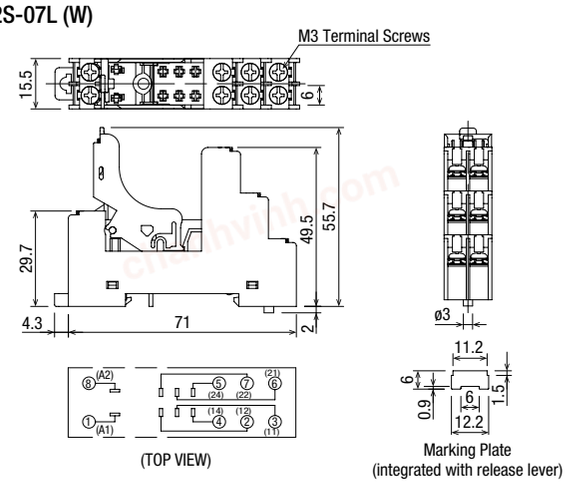
SJ2S-05B (W)



SJ1S-07L (W)

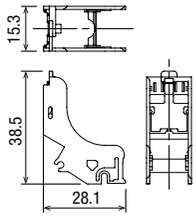


SJ2S-07L (W)



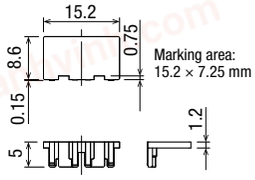
Replacement Parts

When ordering, specify the Ordering No.

Description	Material	Part No.	Ordering Part No.	Package Quantity	Dimensions
Release Lever (with integrated marking plate) 	Plastic (gray)	SJ9Z-CM	SJ9Z-CMPN05	5	 When not using marking plate

Accessories

When ordering, specify the Ordering No.

Description		Material	Part No.	Ordering Part No.	Package Quantity	Dimensions
Removable Marking Plate		Plastic (white)	SJ9Z-PW	SJ9Z-PWPN10	10	
Jumper	For 2 sockets	Nickel-coated brass with polypropylene coating	SJ9Z-JF2	SJ9Z-JF2PN10	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	SJ9Z-JF5PN10		
	For 8 sockets		SJ9Z-JF8	SJ9Z-JF8PN10		
	For 10 sockets		SJ9Z-JF10	SJ9Z-JF10PN10		

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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.

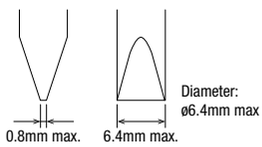
Rail Mounting and Removing

Do not mount or remove the socket in cold temperature (below –20°C), otherwise the socket may be damaged.

Applicable Screwdriver

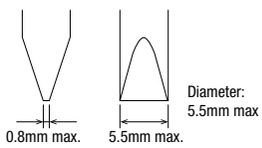
Standard Screw Terminal

Phillips: ø6.4 mm maximum
Slotted: Shown at right



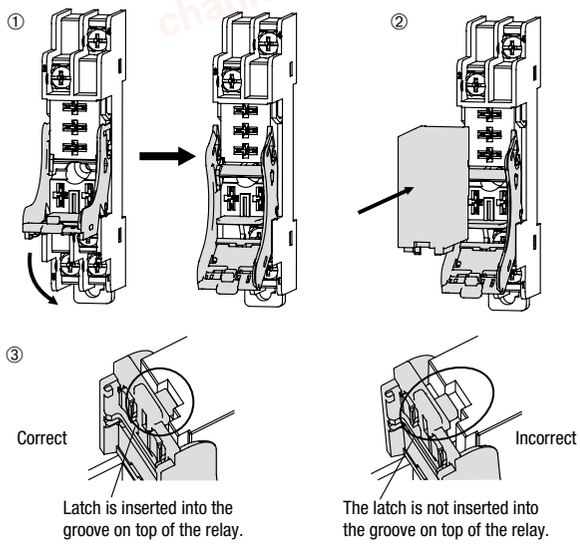
Finger-safe Screw Terminal

Phillips: ø5.5 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

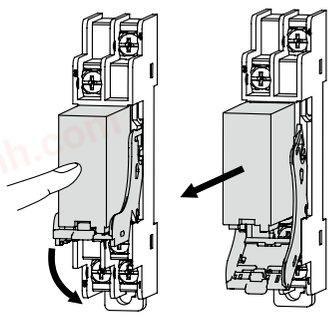


Caution

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.



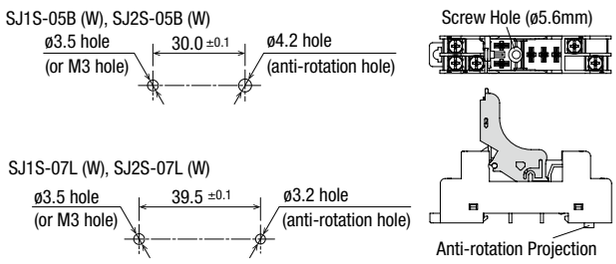
Caution

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 ø5.5mm maximum.

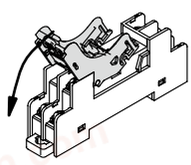
Mounting Hole Layout



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.

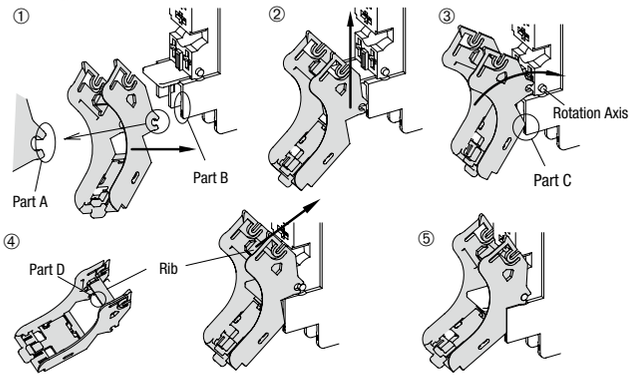
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Instructions

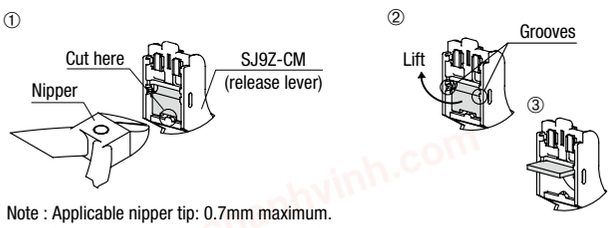
Installing the Release Lever

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.

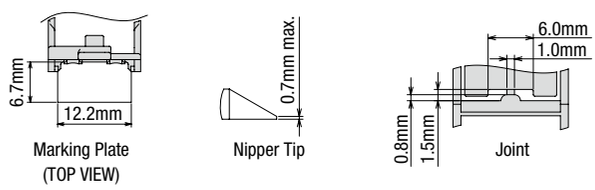


Using Marking Plate integrated with SJ9M-CM Release Lever

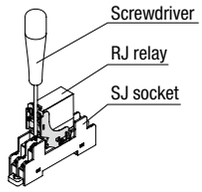
① Using the nippers, cut the joint (Note).
② Lift the marking plate as shown with the arrow.
③ Latch the marking plate into the grooves.



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.

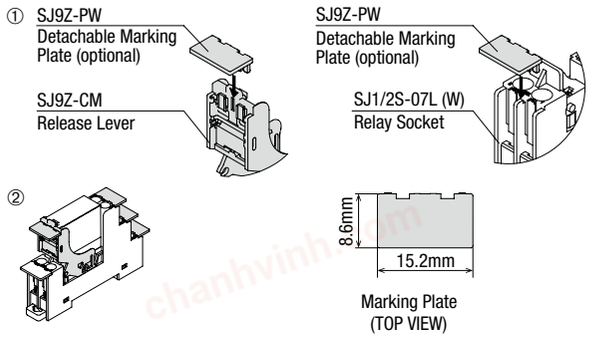


Using SJ9Z-PW Removable Marking Plate (optional)

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		70ºC	55ºC	40ºC	70ºC	55ºC	40ºC	70ºC	55ºC	40ºC	70ºC	55ºC	40ºC	
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)		

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

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