

Relay Sockets

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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.

- 15.5-mm wide
- Standard screw terminal and finger-safe screw terminal are available.
- Release lever has an integrated extensible marking plate.
- Optional marking plate is also available. Can be attached to the release lever (at one position) and the socket (at four positions, finger-safe screw terminal only).
- Degree of protection IP20 (finger-safe screw terminal)
- The release lever makes installation and removal of relays inside small panels simple and quick.
- UL recognized, CSA certified, EN compliant.

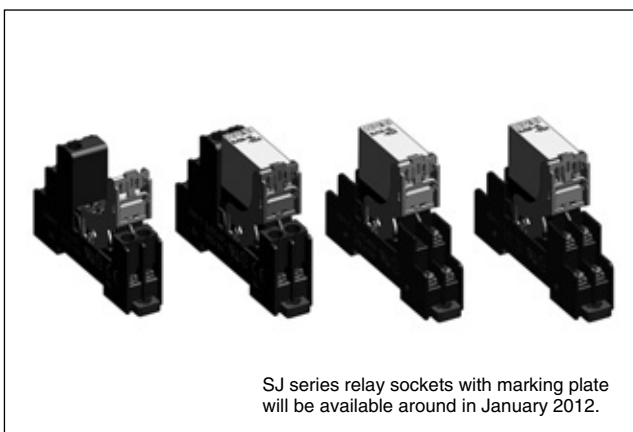
Applicable Standard	Mark	Certification Organization / File No.
UL508		UL recognized, File No. E62437
CSA C22.2 No. 14		CSA File No. LR84913
EN60999-1		EU Low Voltage Directive (Finger-safe screw terminal only)

Terminal Style	Part No.			
	1-pole		2-pole	
Terminal No. Marking 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

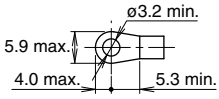
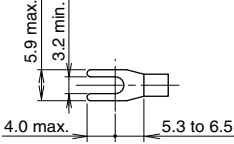
Note: Release lever is supplied with each socket.

Specifications

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

Standard Screw Terminal	Finger-safe Screw Terminal
	

All dimensions in mm.

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

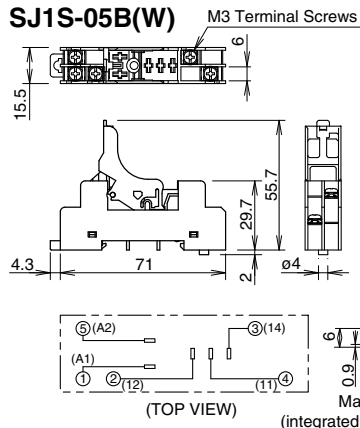
Applicable Relay

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

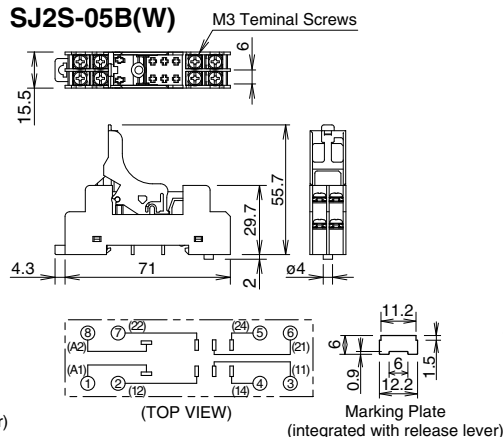
SJ series Relay Sockets

Dimensions

SJ1S-05B(W)

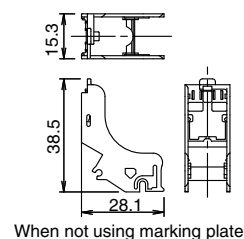


SJ2S-05B(W)

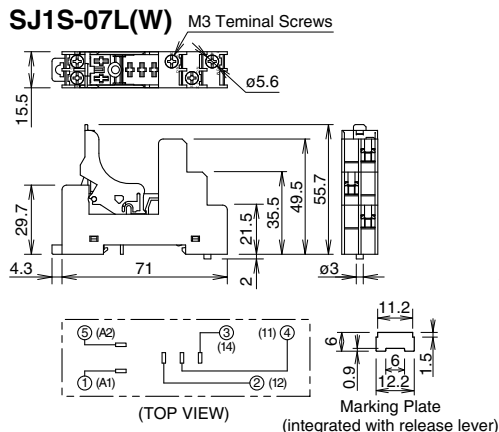


Release Lever

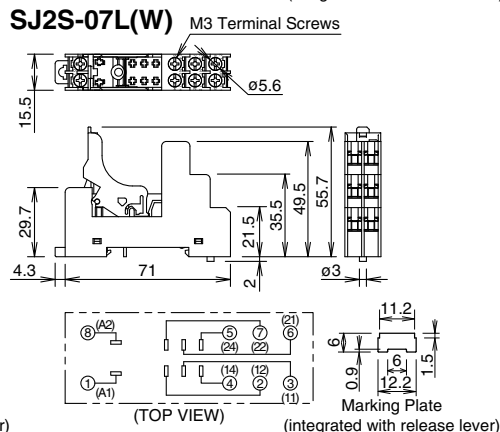
SJ9Z-CM



SJ1S-07L(W)

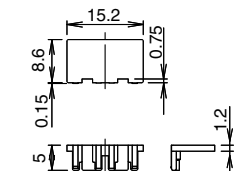


SJ2S-07L(W)



Detachable Marking Plate

SJ9Z-PW



All dimensions in mm.

Replacement Parts

Description	Shape	Material	Part No.	Ordering No.	Package Quantity
Release Lever (with integrated marking plate)		Plastic (gray)	SJ9Z-CM	SJ9Z-CMPN05	5
Detachable Marking Plate (optional)		Plastic (white)	SJ9Z-PW	SJ9Z-PWPN05	5

Accessories

Description	Shape	Material	Part No.	Ordering No.	Package Quantity	Note
DIN Rail		Aluminum Weight: Approx. 200g	BAA1000	BAA1000PN10	10	Length: 1m Width: 35 mm
		Steel Weight: Approx. 200g	BAP1000	BAP1000PN10		
End Clip		Metal (zinc plated steel) Weight: Approx. 15g	BNL5	BNL5PN10	10	Used on a DIN rail to fasten relay sockets. To prevent the sockets from damage, position the clip before fastening.
			BNL6	BNL6PN10		
DIN Rail Spacer		Plastic (black)	SA-406B	SA-406B	1	Thickness: 5 mm Used for adjusting spacing between sockets mounted on a DIN rail
Jumper	For 2 sockets	Nickel-coated brass with polypropylene coating	SJ9Z-JF2	SJ9Z-JF2PN10	10	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		

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.

Operating Instructions

Installing relays

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

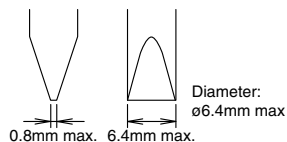
Rail Mounting and Removing

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

Applicable Screwdriver

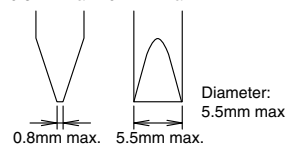
Standard Screw Terminal

Phillips: $\phi 6.4$ mm maximum
Slotted: Shown at right



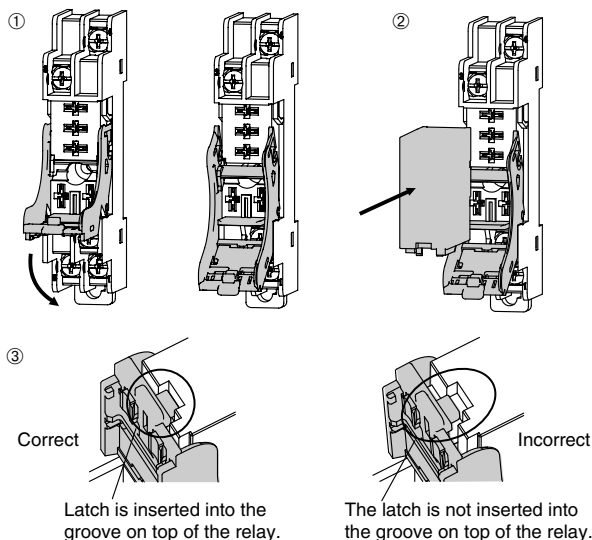
Finger-safe Screw Terminal

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 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.

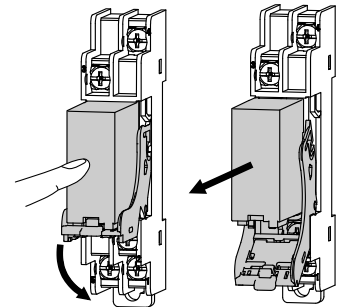


Caution

Ensure that the relay is installed in the socket completely. When installed loosely, the relay may fall out, resulting in possible damage to the relay.

Removing the release lever

- 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.



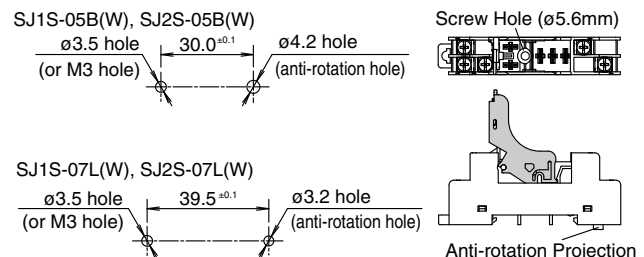
Caution

- Make sure that wire or finger is not caught between the release lever and socket.
- Because release lever is detachable, 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.

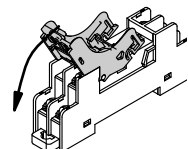
Mounting Hole Layout



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

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 lever will be detached from the socket.



Caution

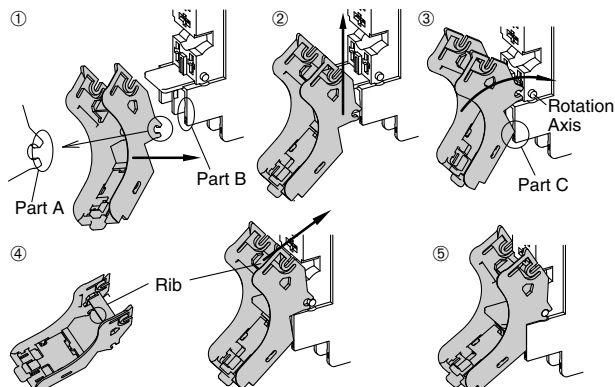
Make sure that the relay has been removed from the socket before removing the release lever. If the release lever is removed when the relay is installed on the socket, the relay may fall out.

SJ series Relay Sockets

Operating Instructions

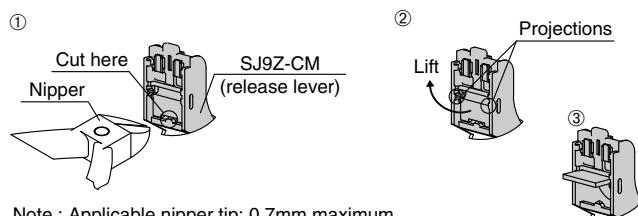
Installing the Release Lever

- 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 Complete the installation.

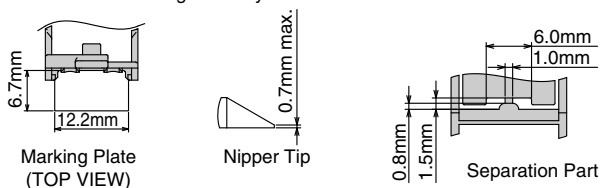


Using Marking Plate integrated with SJ9M-CM Release Lever

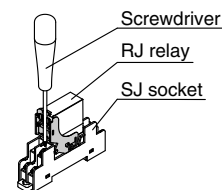
- ① Using a nipper, cut the marking plate at the separation part shown below, so that the marking plate can be lifted. (Note)
- ② Lift the marking plate as shown with the arrow, past the projections.
- ③ Marking plate is in place.



Note : Applicable nipper tip: 0.7mm maximum.
Make sure to cut the marking plate at the separation part before installing the relay.

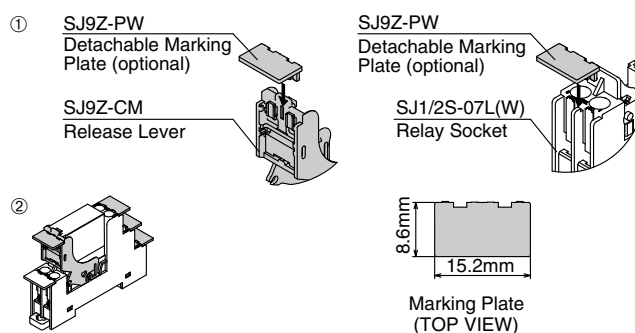


- The integrated marking plate must be retracted to the original position when wiring.
- The SJ9Z-CM integrated marking plate can be lifted and retracted for 50 times minimum.



Using SJ9Z-PW Detachable Marking Plate (optional)

- ① Insert the marking plate into the slot on the release lever or socket.
- Note: SJ9Z-PW detachable 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.

	SJ1S-05B(W)			SJ1S-07L(W)			SJ2S-05B(W)			SJ2S-07L(W)		
Ambient Temperature	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	11A*	12A		10A*	11A	11A	7A*	8A		6A*	7A	8A

* When installing AC relays, maintain at least 4mm between the sockets.

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References

SJ series Relay Sockets (PC Board Terminal)

PC board socket for RJ plug-in terminal relay.

- Used for RJ series plug-in terminal relay.
- 1-pole: 12, 2-pole: 8A
- Latch makes it easy to install and removal the relay.

Applicable Standards	Mark	Certification Organization / File No.
UL508		UL recognized, UL File No. E62437
CSA C22.2 No. 14		CSA File No. LR84913
EN60999-1		EU Low Voltage Directive (Finger-safe screw terminal only)

Sockets

No. of Poles	Part No.	Ordering No.	Package Quantity
1-pole	SJ1S-61	SJ1S-61PN10	10
	SJ1S-61	SJ1S-61PN50	50
2-pole	SJ2S-61	SJ2S-61PN10	10
	SJ2S-61	SJ2S-61PN50	50

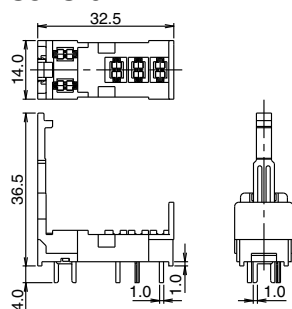


Specifications

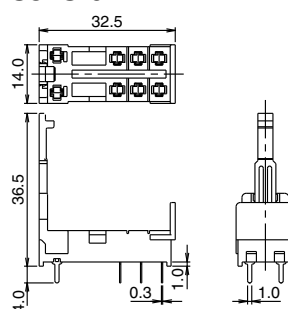
Model	SJ1S-61	SJ2S-61
Rated Current	12A	8A
Rated Insulation Voltage	250V AC/DC	
Insulation Resistance	100M Ω minimum (500V DC megger)	
Dielectric Strength	Between contact and coil: 5000V AC, 1 minute	
	Between contacts of the same pole: 1000V AC, 1 minute	
	Between contacts of the different pole: 3000V AC, 1 minute	
Vibration Resistance	Damage limits: 90 m/s ² Resonance: 10 to 55 Hz, amplitude 0.75 mm	
Shock Resistance	Damage limits: 1000 m/s ²	
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)	
Weight (approx.)	4.2g	4.5g

Dimensions

SJ1S-61

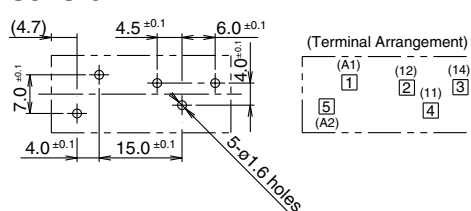


SJ2S-61

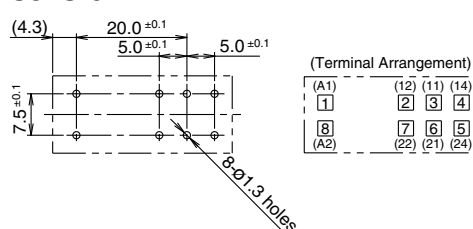


Mounting Hole Layout/Terminal Arrangement (bottom view)

SJ1S-61



SJ2S-61

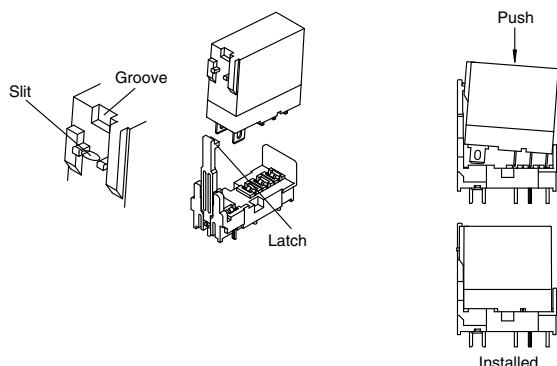


SJ Series Relay Sockets (PC Board Terminal)

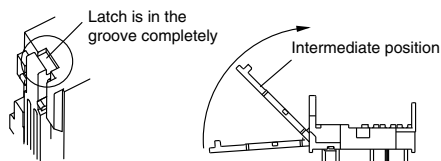
Operating Instructions

Installing the relay

Press in the relay to the socket by guiding the latch to pass through the slit.

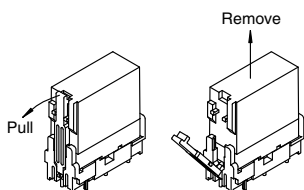


The relay is in place if the latch fits the groove completely. The latch swings open and can stop at the intermediate position.

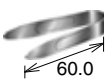


Removing the relay

Pull the latch, and pull out the relay from the socket.



The relay can be removed by fingers or by using the removal tool (MT-101).

Description & Shape	Part No.
 60.0	MT-101

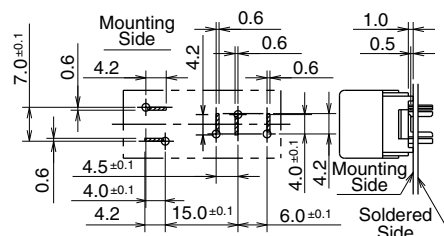
Soldering

Use a soldering iron of 60W (350°C), and quickly complete soldering with approximately 3 seconds. Do not use flow or dip soldering. Sn-Ag-Cu is recommended when using lead-free solder.

PC Board Pattern Design

Press in the relay to the socket by guiding the latch to pass through the slit.

On the bottom of SJ1S-61, metal parts other than the solder leads are exposed to the mounting side of PC board as shown in the following figure as marked with *. Take these metal parts into consideration when designing the PC board.



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References

DF Series Finger-safe Sockets

Finger-safe sockets

- Contains no lead, cadmium, mercury, hexavalent chromium, PBB, or PBDE.
- Accepts the same marking plates as the RU series relays, allowing for easy identification of circuits.
- Fork style jumpers available for easy wiring of adjoining sockets.
- The SM2S-05DF can also mount 4-pole relays when using only 2 poles.
- GT5Y miniature electric timer can be installed.
- UL, c-UL recognized, CE marked.

Applicable Standards	Mark	Certification Organization / File No.
UL508 CSA C22.2 No. 14		UL/c-UL recognized File No. E188846
EN60999-1		EU Low Voltage Directive



Specifications

Model	SM2S-05DF	SY4S-05DF
No. of Poles	2 poles	4 poles
Rated Insulation Voltage	250V AC/DC	
Rated Current	10A	6A
Insulation Resistance	100 MΩ minimum (500V DC megger)	
Applicable Wire	1.25 mm ² (2 mm ² maximum)	
Screw Terminal	M3 slotted Phillips	
Terminal Screw Tightening Torque	0.6 to 1.0 N·m (maximum tightening torque: 1.2 N·m)	
Dielectric Strength	2000V AC, 1 minute (between live and dead metal parts, between live metal parts of different poles)	
Operating Temperature	-55 to +70°C (no freezing)	
Operating Humidity	45 to 85% RH (no condensation)	
Storage Temperature	-55 to +70°C (no freezing)	
Storage Humidity	45 to 85% RH (no condensation)	
Degree of Protection	IP20	
Weight	40g	56g
Applicable Relay/Timer	RU2S, RM2S, GT5Y-2	RU4S, RU42S, RY4S, RY42S, GT5Y-4
Applicable Hold-down Spring for Relay/Timer	SFA-503 (RU relay), SFA-502(RM relay), SFA-511 (timer)	SFA-502 (relay), SFA-511 (timer)
Standards	UL508, CSA C22.2 No. 14, EN60999-1	

Accessories

Name	Part No.	Ordering No.	Package Quantity	Description
Relay Hold-down Spring	SFA-502	SFA-502PN20	20	Stainless steel
	SFA-503 (Note 1)	SFA-503PN20		Stainless steel
Timer Hold-down Spring	SFA-511	SFA-511PN20		Stainless steel
Jumper (SM series)	2 sockets SM9Z-JF2	SM9Z-JF2PN10	10	For SM2S-05DF (Note 2)
	5 sockets SM9Z-JF5	SM9Z-JF5PN10		
	8 sockets SM9Z-JF8	SM9Z-JF8PN10		
Jumper (SY series)	2 sockets SY9Z-JF2	SY9Z-JF2PN10		For SY4S-05DF (Note 2)
	5 sockets SY9Z-JF5	SY9Z-JF5PN10		
	8 sockets SY9Z-JF8	SY9Z-JF8PN10		
Marking Plate	RU9Z-P*	RU9Z-P*PN10	10	Compatible with RU relays.
DIN Rail (1000 mm)	BAA1000	BAA1000PN10		Aluminum
	BAP1000	BAP1000PN10		Steel
End Clip	BNL5	BNL5PN10		Steel
	BNL6	BNL6PN10		Steel
DIN Rail Spacer	SA-406B	SA-406B	1	Thickness: 5 mm Used for adjusting spacing between sockets mounted on a DIN rail

Note 1: Used when using SM2S-05DF with RU relay (cannot be used with SY4S-05DF)

Note 2: Make sure that the total current to the jumper does not exceed the rated current.

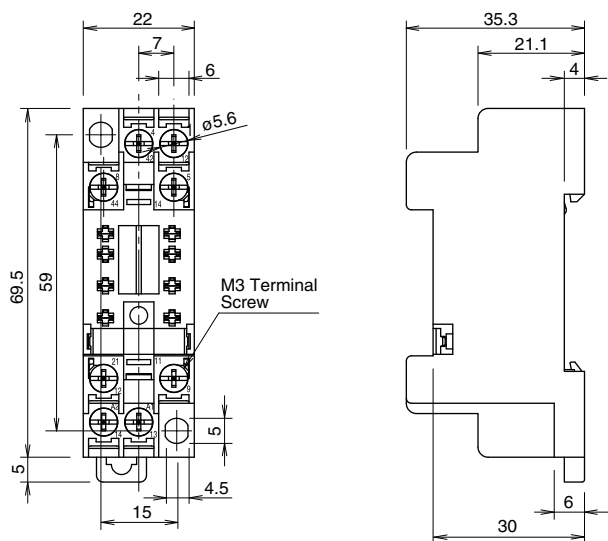
- Insert a color code in place of *. A (amber), G (green), S (blue), W (white), Y (yellow)

DF Series Finger-safe Sockets

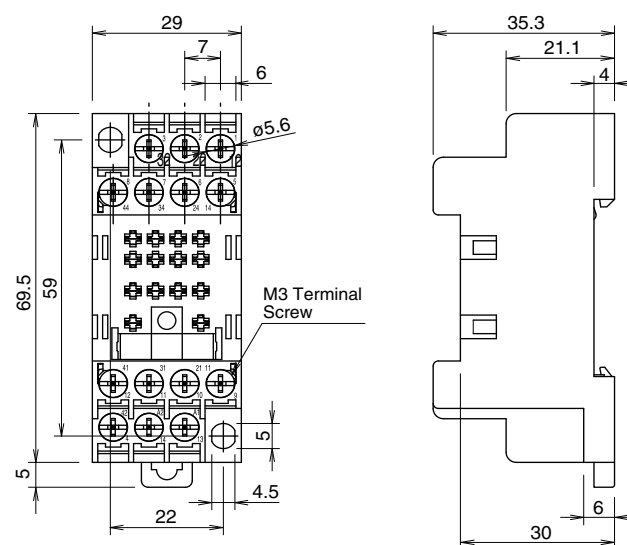
Dimensions

Sockets

SM2S-05DF

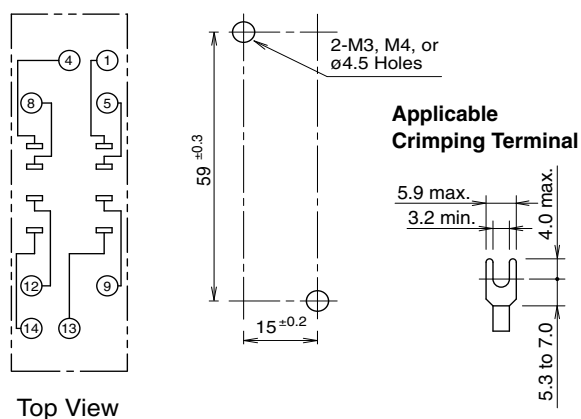


SY4S-05DF



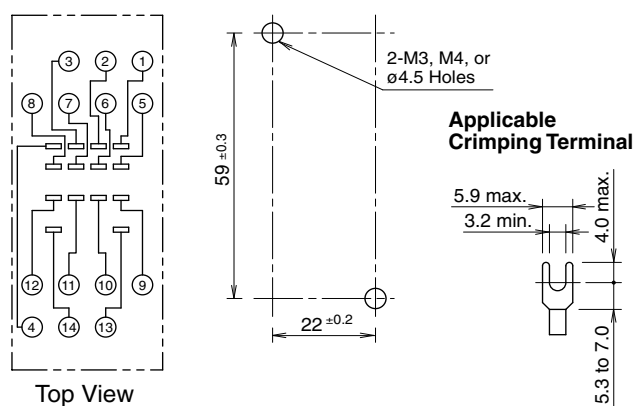
Terminal Arrangement

Mounting Hole Layout



Terminal Arrangement

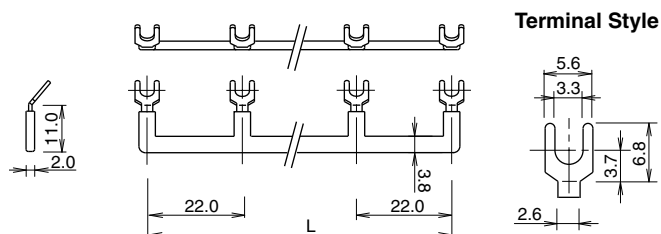
Mounting Hole Layout



All dimensions are in mm.

Insulated Fork Jumpers

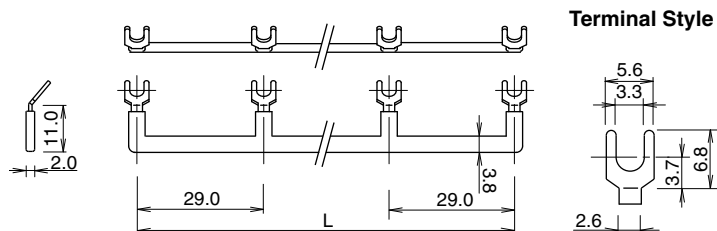
For SM2S-05DF



Terminal Style

Part No.	L (mm)	No. of Sockets
SM9Z-JF2	22	2
SM9Z-JF5	88	5
SM9Z-JF8	154	8

For SY4S-05DF



Terminal Style

Part No.	L (mm)	No. of Sockets
SY9Z-JF2	29	2
SY9Z-JF5	116	5
SY9Z-JF8	203	8

Flush Silhouette
Switches & Pilot Lights
Display Lights
LED Illumination Units
Display Units
Safety Products
Terminal Blocks
Comm. Terminals
AS-Interface
Relays & Timers
Sockets
Circuit Protectors
Power Supplies
PLCs & SmartRelay
Operator Interfaces
Sensors
Control Stations
Explosion Protection
References

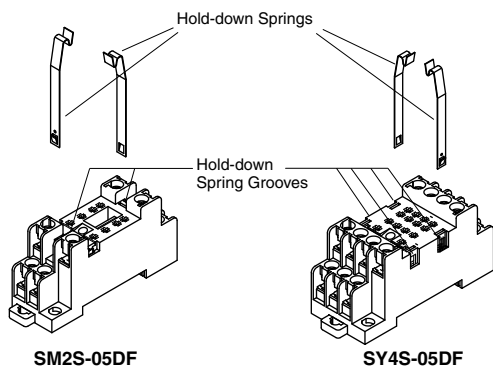
DF Series Finger-safe Sockets

Operating Instructions

Hold-down Springs

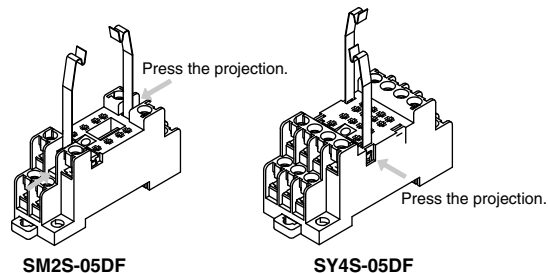
Installation

Insert hold-down springs into the grooves as shown below. Make sure that the small projections on the springs are facing outward.



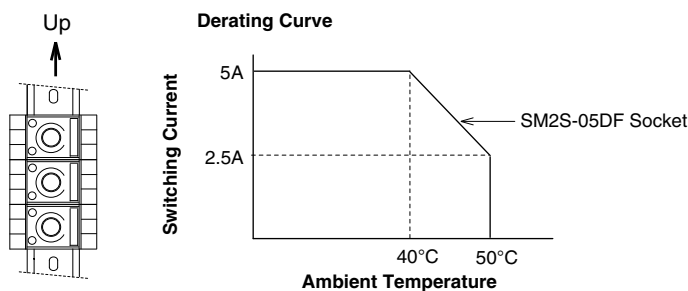
Removal

Remove hold-down springs by lifting them up while depressing the small projections on the hold-down springs.



Using GT5Y-2 Timers and SM2S-05DF Sockets

When installing two or more GT5Y-2 timers on SM2S-05DF sockets in close mounting proximity as shown below, take the derating curve into consideration.



Safety Precautions

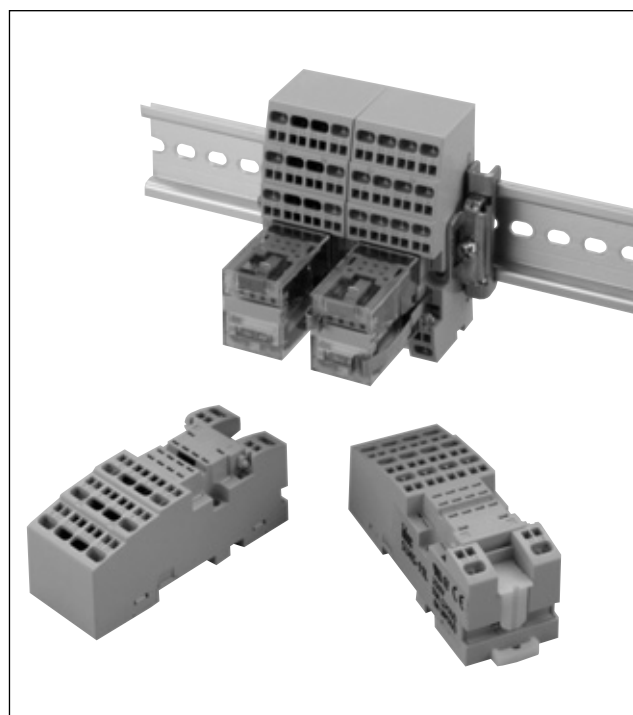
- Turn off power to the socket before starting installation, removal, wiring, maintenance, and inspection of the relays. Failure to turn power off may cause electrical shock or fire hazard.
- Do not touch the terminals while power is applied, otherwise electrical shock or fire hazard may result.
- Use wires of the proper size to meet voltage and current requirements. Tighten terminal screws on the socket to the proper tightening torque. Do not tighten more than the maximum torque. Also, do not leave the terminal screws tightened loosely, otherwise overheating may result in fire hazard.
- Observe specifications and rated values, otherwise electrical shock or fire hazard may be caused.

SU series Spring Clamp Relay Sockets

New spring-clamp relay socket providing higher level of safety.

- Can be installed easily on 35-mm-wide DIN rail in snap-on action.
- Relay contact terminals on upper side and coil terminal on the lower provide higher safety and allows easy wiring.
- Finger-safe IP20 degree of protection (IEC 60529)
- Spring clamp style connection achieves high contact reliability and vibration resistance regardless of wire size and shape.
- Stranded wire, single wire, stranded wire with ferrule can be connected easily using a screwdriver.
- Wiring is possible only by stripping the wire. Crimp terminal and soldering are not necessary, reducing wiring and labor.
- Spring clamp eliminates loosening, reducing maintenance and labor. Each terminal has two wire ports, enabling jumper wiring. Jumper is available as accessory.
- Flameproof material UL94 V-0
- UL recognized, CSA certified, EN compliant.

Applicable Standards	Mark	Certification Organization / File No.
UL508		UL recognized UL File No. E62437
CSA C22.2 No. 14		CSA File No. LR84913
EN60999-1		EU Low Voltage Directive



Relay Sockets

Shape	No. of Poles	Part No.	Applicable Relay
	2	SU2S-11L	RU2S RM2S GT5Y-2
	4	SU4S-11L	RU4S, RY4S, RY42S, GT5Y-4

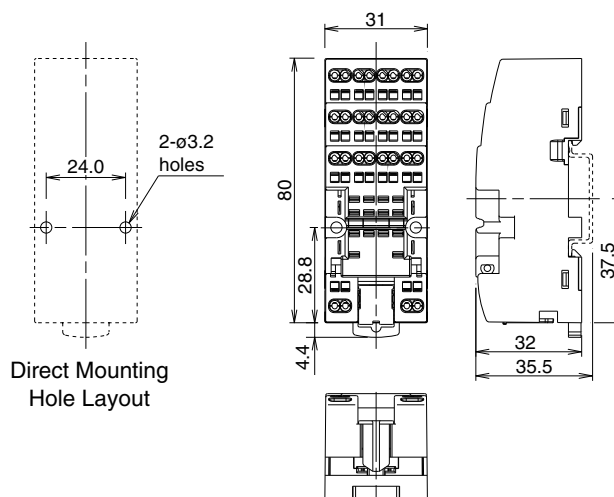
Specifications

Part No.		SU2S-11L	SU4S-11L
Operating Temperature		-55 to +70°C (no freezing)	
Operating Humidity		45 to 85% RH (no condensation)	
Storage Temperature		-55 to +70°C (no freezing)	
Storage Humidity		45 to 85% RH (no condensation)	
Applicable Wire	EN/IEC	Solid Wire	0.2 to 1.5mm ²
		Stranded Wire	0.2 to 1.25mm ²
	UL	AWG24-16	
Rated Insulation Voltage		250V	
Rated Current (Note)		10A	6A (4-pole)
		8A (collective mounting)	10A (2-pole) 8A (2-pole, collective mounting)
Dielectric Strength		Between contacts of the different poles: 2500V AC, 1 min. (between live and dead metal parts, between live metal parts of the different poles)	
Insulation Resistance		100MΩ minimum	
Degree of Protection		IP20 (IEC 60529)	
Weight (approx.)		53g	63g

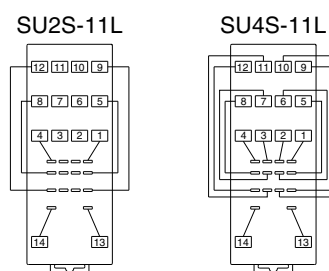
Note: When operating over the rated current in collective mounting, keep 10mm between the SU sockets.

Dimensions

SU2S-L/SU4S-11L



Terminal Arrangement (top view)



Flush Silhouette

Switches & Pilot Lights

Display Lights

LED Illumination Units

Display Units

Safety Products

Terminal Blocks

Comm. Terminals

AS-Interface

Relays & Timers

Sockets

Circuit Protectors

Power Supplies

PLCs & SmartRelay

Operator Interfaces

Sensors

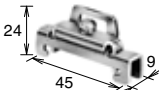
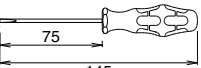
Control Stations

Explosion Protection

References

SU Series Spring Clamp Relay Sockets

Accessories

Name	Shape	Specifications	Part No.	Ordering No.	Package Quantity	Remarks
Jumper		Brass (ABS cover)Weight: 3g (approx.)	SU9Z-J5	SU9Z-J5PN10	10	Used for interconnecting relay coil terminals. Can be cut to required length.
Hold-down Spring (leaf spring)		Stainless steel Weight (a pair): 1g (approx.)	SFA-101	SFA-101PN20	10 pairs	A pair of springs are used for a relay.
		Stainless steel Weight (a pair): 2g (approx.)	SFA-202	SFA-202PN20	10 pairs	
DIN Rail		Aluminum Weight: 200g (approx.)	BAA1000	BAA1000PN10	10	Length: 1m Width: 35mm
		Steel Weight: 320g	BAP1000	BAP1000PN10	10	
End Clip		Metal (zinc plated steel) Weight: 15g (approx.)	BNL6	BNL6PN10	10	
Applicable Screwdriver		Weight: 20g (approx.)	BC1S-SD0	BC1S-SD0	1	Used to for wiring spring clamp relay sockets.

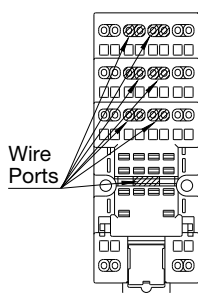
Note 2: Make sure that the total current to the jumper does not exceed the rated current.

Operating Instructions

Identifying Socket

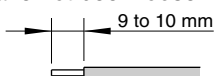
SU2S-11L and SU4S-11L can be identified by the color of wire ports marked below.

Color	No. of Ppoles	Part No.
Black	2	SU2S-11L
Gray	4	SU4S-11L



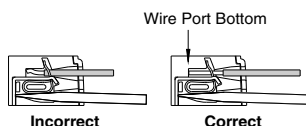
Applicable Wires

- Strip the wire insulation 9 to 10 mm from the end.
- When using stranded wires without ferrules, make sure that the core wires have not been loosened.



- In applications using ferrules for stranded wires, choose the ferrule listed in the table below. Make sure that an insulation sheath is applied when using the ferrules. When using

thin wires with insulation diameter of $\phi 1.6$ mm or less, do not insert the wire too deeply where the insulation inserts into the spring clamp opening. Make sure that the wire insulation is stripped 9 to 10 mm and the wire is inserted to the bottom.

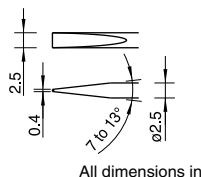


Applicable Ferrules

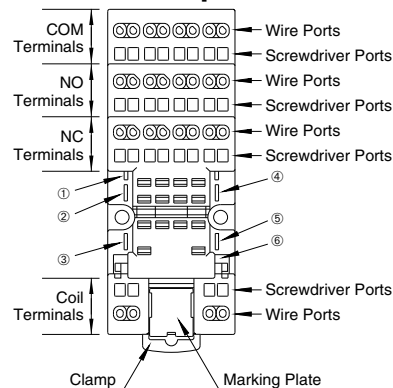
Applicable Wire (stranded)		Part No.	Manufacturer
mm ²	AWG		
0.25	24	AI 0.25-12BU	Phoenix Contact
—	22	AI 0.34-8TQ	
0.5	20	AI 0.5-8WH	
		AI 0.5-10WH	

Applicable Screwdriver

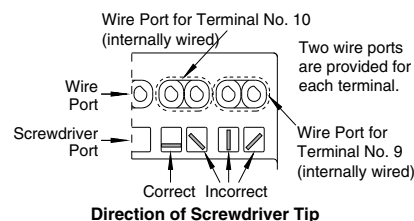
For wiring, use the optional screwdriver (BC1S-SD0) or the following applicable screwdriver.



Parts Description



①②⑤⑥: Spring slots for SFA-101 leaf springs
②③④⑤: Spring slots for SFA-202 leaf springs



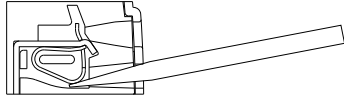
Direction of Screwdriver Tip

SU Series Spring Clamp Relay Sockets

Operating Instructions

Wiring Instructions

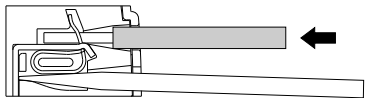
1. Insert the optional screwdriver (BC1S-SD0) or an applicable screwdriver into the square-shaped port as shown, until the screw-driver tip touches the bottom of the spring.



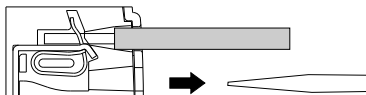
2. Push in the screwdriver until it touches the bottom of the port. The wire port is now open, and the screwdriver is held in place. The screwdriver will not come off even if you release your hand.



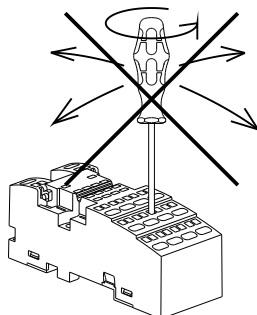
3. While the screwdriver is retained in the port, insert the wire or ferrule into the round-shaped wire port. Each wire port can accommodate one wire or ferrule. When connecting two wires to one terminal, use the adjoining port of the same terminal.



4. Pull out the screwdriver. The connection is now complete.

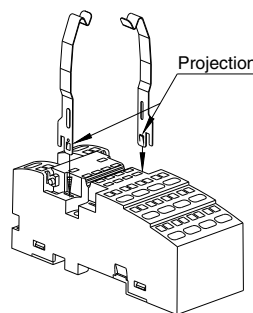


Do not tilt or turn the screwdriver while it is inserted into the screwdriver port in the socket, otherwise the socket may break.

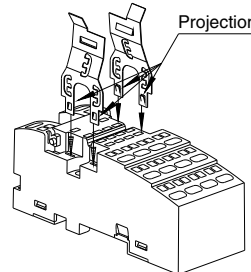


Installing the Hold-down Spring

Use SFA-101 or SFA-202 hold-down spring ordered separately (see page 1302). To install, insert the springs into the spring slots with the projection on the springs facing each other. Once installed, the springs cannot be removed.



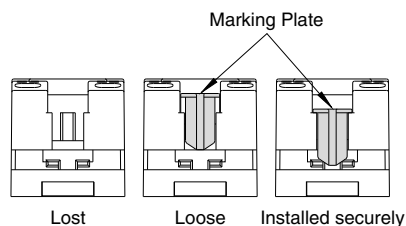
SFA-101 Leaf Spring



SFA-202 Leaf Spring

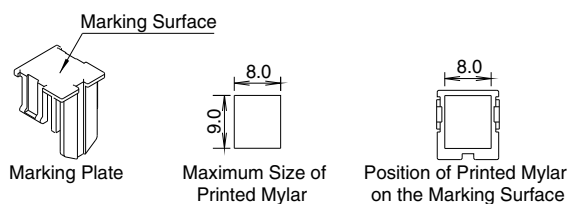
Installing the Marking Plate

Because of its removable structure, the marking plate may have fallen from the socket or become loose in delivery. Make sure that the marking plate is securely installed before starting operation. The marking plate protects the conductive portion of the socket, located under the marking plate, by preventing metal fragments or pieces of wire from dropping inside. Should any such fragments enter the socket, they may cause fire hazard, damage, or malfunction.



Marking Plate

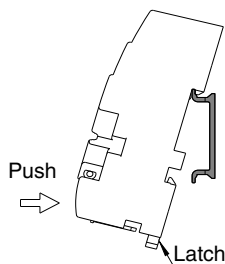
Write markings on the SU sockets using an oil-based marker, or glue printed mylar on the marking surface. The size of the printed mylar can be 8 × 9 mm maximum.



DIN Rail Mounting and Removing

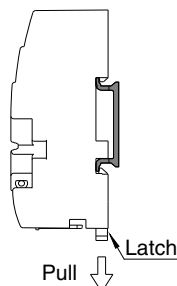
Mounting

With the latch facing downward, install the socket on the DIN rail as shown below.



Removing

Pull the latch with a hand or using a screwdriver, and remove the socket from the DIN rail.



Do not mount or remove the socket at -20°C or below.

Flush
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Illumination
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Units

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Control
Stations

Explosion
Protection

References

SU series Spring Clamp Relay Sockets

Operating Instructions

SU9Z-J5 Jumper for SU2S-11L and SU4S-11L

The SU9Z-J5 is used to install five sockets. When installing less than five sockets, cut the jumper according to the instructions described below.

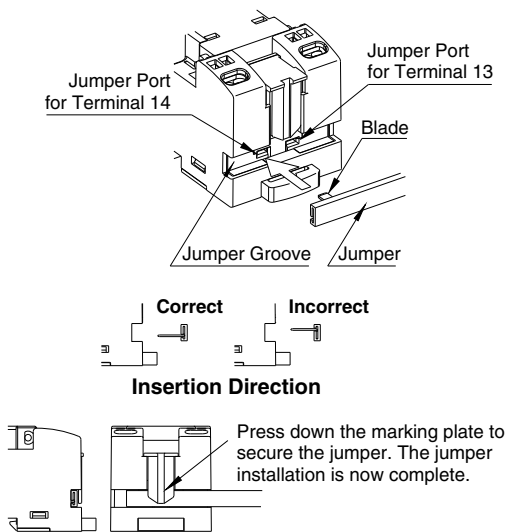
The SU9Z-J5 is for coil terminals only.

SU9Z-J5 Jumper Specifications

Rated Current		3A
Material	Conductor	Nickel-plated brass
	Sheath	ABS resin

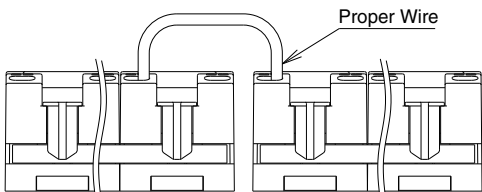
Installing the SU9Z-J5 Jumper

Loosen the marking plate on the socket. Making sure that the SU9Z-J5 jumper is correctly aligned, insert the blades into the ports in the groove of the SU socket.



Jumper Wiring to Six or More SU Sockets

To jumper wire six or more SU sockets, connect five sockets using whole jumpers and the remaining sockets using a cut jumper. Then connect the two terminals on adjoining sockets using an applicable wire (see table below).



Jumper Wiring of Terminal 14 between Adjoining Sockets

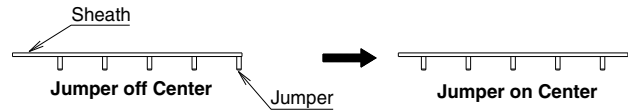
Wire	Size
Stranded Wire	0.2 to 1.25 mm ²
Solid Wire	0.2 to 1.5 mm ²
AWG	24 to 16

Note 1: Use a wire with cable insulation diameter of $\phi 3.15$ mm maximum.

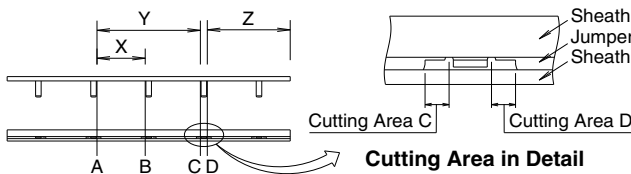
Note 2: Strip the cable insulation 9 to 10 mm from the end.

Installing the SU9Z-J5 Jumper on Two, Three, or Four SU Sockets

As shown below, slide the jumper in the sheath so that the jumper aligns with the center of the sheath.

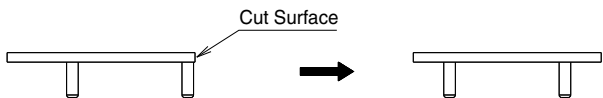


With the sheath properly installed on the jumper, cut the sheath and jumper at the points shown below, using cutting pliers. Referring to the drawing on the below right, make sure that the sheath and jumper are cut within the cutting area. Dispose of unused portions according to local waste disposal requirements.



For Connecting	Jumper Quantity	Cutting Area	Discard
2 sockets	2	A, C	Y
2 sockets	1	A, B	X
3 sockets	1		
4 sockets	1	D	Z

After cutting the jumper and sheath, slide the jumper as shown below, so that the ends of the jumper are not exposed.



Safety Precautions

Turn off the power to the SU9Z-J5 jumper before starting installation, removal, wiring, maintenance, or inspection of the jumper, failure to turn power off may cause an electrical shock or fire hazard.

To avoid a short circuit due to incorrect wiring, confirm which terminals are connected to the jumper before starting wiring.

SF1V Relay Sockets

DIN rail mount and PC board mount socket for RF1V Force guided relays

- Finger-safe DIN rail mount socket and PC board mount socket.
- Degree of protection: IP20 (finger-safe screw terminal)
- UL, CSA, and EN compliant.

Applicable Standards	Mark	Certification Organization / File No.
UL508		UL-c-UL recognized File No. E62437
CSA C22.2 No.14		CSA File No. 253350
EN147000 EN147100		TÜV SÜD
		EU Low Voltage Directive (DIN rail mount sockets only)

Socket Style	No. of Poles	Part No.
DIN Rail Mount Sockets	4	SF1V-4-07L
	6	SF1V-6-07L
PC Board Mount Sockets	4	SF1V-4-61
	6	SF1V-6-61

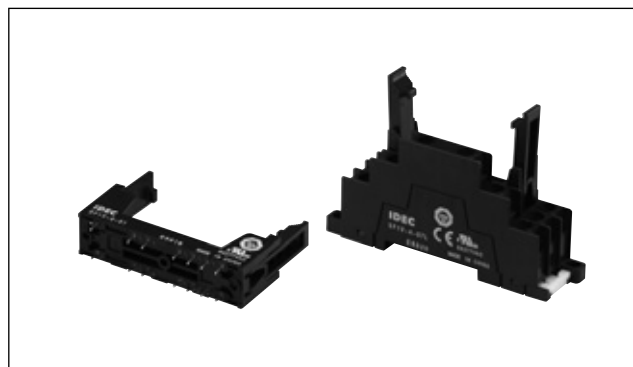
Specifications

Part No.	SF1V-4-07L	SF1V-6-07L	SF1V-4-61	SF1V-6-61
Rated Current	6A			
Rated Voltage	250V AC/DC			
Insulation Resistance	1000 M Ω minimum (500V DC megger, between terminals)			
Dielectric Strength	2500V AC, 1 minute (between terminals)			
Screw Terminal Style	M3 slotted Phillips screw			
Applicable Wire	0.7 to 1.65 mm ² (18 AWG to 14 AWG)			
Recommended Screw Tightening Torque	0.5 to 0.8 N·m			
Terminal Strength	Wire tensile strength: 50N min.			
Vibration Resistance	Damage limits: 10 to 55 Hz, amplitude 0.75 mm Resonance: 10 to 55 Hz, amplitude 0.75 mm			
Shock Resistance	1000 m/s ²			
Operating Temperature (Note)	-40 to + 85°C (no freezing)			
Storage Temperature				
Operating Humidity	5 to 85% RH (no condensation)			
Storage Humidity				
Degree of Protection	IP20 (finger-safe screw terminals)			
Weight (approx.)	40g	55g	9g	10g

Note: When using at 70 to 85°C, reduce the switching current by 0.1A/°C.

Accessories

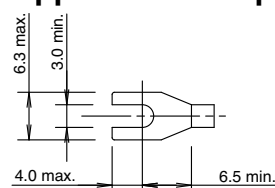
Item	Shape	Specifications	Part No.	Ordering No.	Package Quantity	Remarks
DIN Rail		Aluminum Weight: Approx. 200g	BAA1000	BAA1000PN10	10	Length: 1m Width: 35 mm
		Steel Weight: Approx. 320g	BAP1000	BAP1000PN10	10	
		Aluminum Weight: Approx. 250g	BNDN1000	BNDN1000	1	North American standard product Length: 1m Width: 35 mm
End Clip		Metal (zinc plated steel) Weight: Approx. 15g	BNL5	BNL5PN10	10	—
			BNL6	BNL6PN10	10	



Operating Temperature

	Single Mounting (10mm spacing)	Collective Mounting	
Ambient Temperature	-40°C to +85°C	4-pole	-40°C to +70°C
		6-pole	-40°C to +65°C
Contact Current	6A	6A	
Remarks	When the ambient temperature is over 70°C, lower the contact current at 0.1A/°C. 5NO1NC: Up to 70°C: Keep the total current of NO side to 24A maximum. Over 70°C: Lower the contact current at 0.1A/°C.	4-pole	When the ambient temperature is over 70°C, lower the contact current at 0.1A/°C.
		6-pole	When the ambient temperature is over 50°C, lower the contact current at 0.1A/°C. NO1NC: Up to 50°C: Keep the total current of NO side to 24A maximum. Over 50°C: Lower the contact current at 0.1A/°C.

Applicable Crimping Terminals



Note: Ring tongue terminals cannot be used.

Flush
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Units

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Timers

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SmartRelay

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Sensors

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Stations

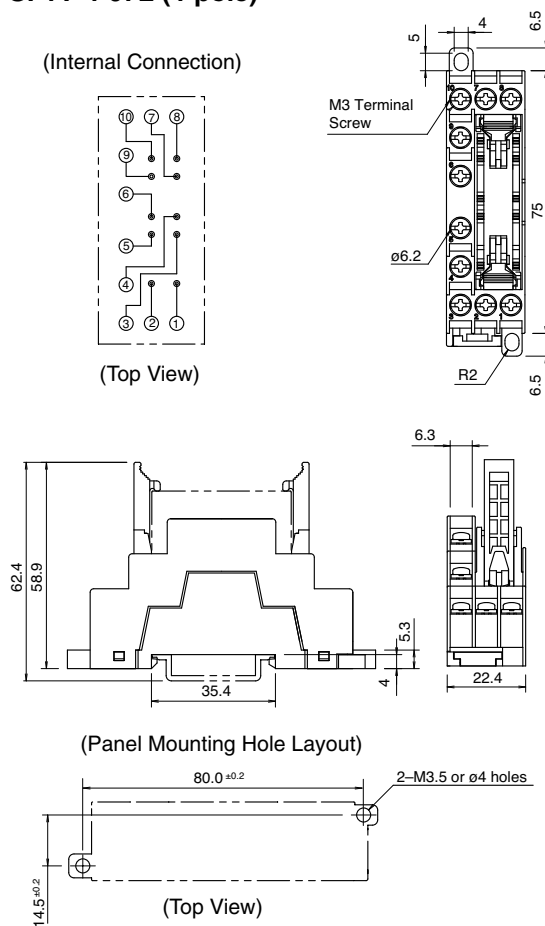
Explosion
Protection

References

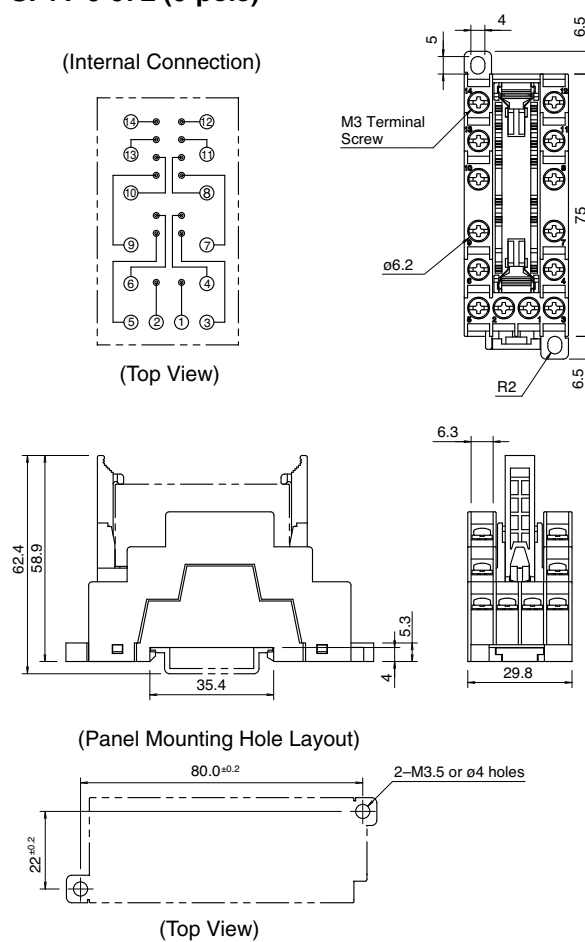
SF1V Relay Sockets

SF1V DIN Rail Mount Socket Dimensions

SF1V-4-07L (4-pole)

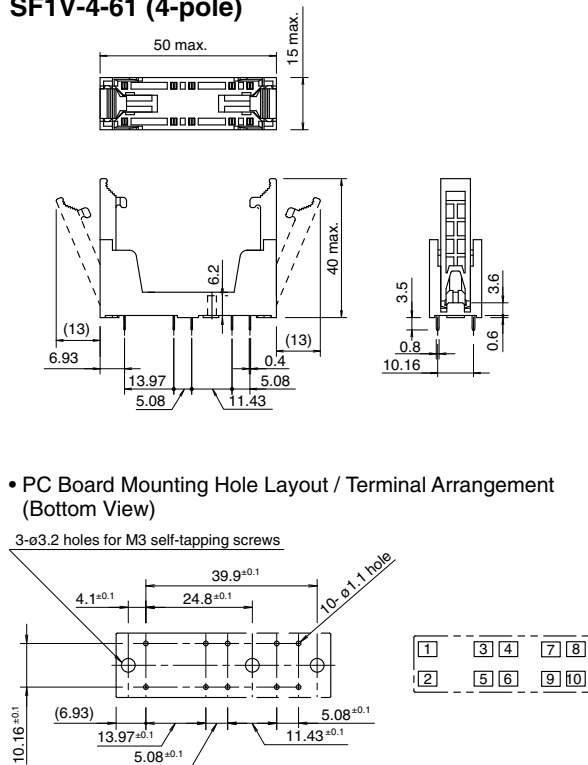


SF1V-6-07L (6-pole)

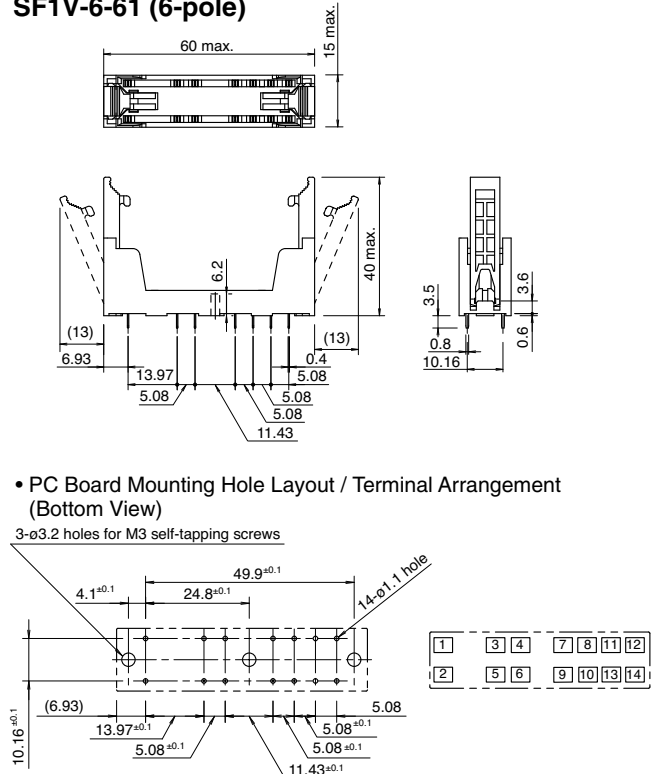


SF1V PC Board Mount Sockets

SF1V-4-61 (4-pole)



SF1V-6-61 (6-pole)



All dimensions in mm.

Relay Sockets

Socket Selection Guide

Mount ing Style	Series	Part No.	Style	No. of Poles	Color	Terminal Screw Applicable Wire	Approvals	Rated Insulation Voltage/ Rated Current	Applicable Relay, etc.	Page		
DIN Rail Mount	SM	SM2S-05A	Standard	2	Black	M3 2 mm² max.	—	250V, 7A	RM2S, RU2S, GT5Y-2	1309		
		SM2S-05C	Finger-safe		Gray		UL, CSA, TÜV	250V, 7A (UL, TÜV: 10A)		1309		
		SM2S-05D	Slim		Black	M3, 1.25 mm² (2 mm² max.)	UL, c-UL	250V, 10A	RM2S, RU2S	1309		
		SM2S-05DF	Finger-safe				UL, c-UL, CE			1310		
	SY	SY2S-05A	Standard	2	Black	M3 2 mm² max.	—	250V, 7A	RY2S	1310		
		SY2S-05C	Finger-safe		Gray		UL, CSA, TÜV			1310		
		SY4S-05A	Standard	4	Black	—	250V, 6A	RY4S, RY2KS, RU4S, RU42S, GT5Y-U	1310			
		SY4S-05C	Finger-safe		Gray	UL, CSA, TÜV			1310			
		SY4S-05D	Slim		Black	UL, c-UL			250V, 10A	RU4S, RU42S, RY4S	1311	
		SY4S-05DF	Finger-safe			UL, c-UL, CE			1311			
	SU	SU2S-11L	Spring-clamp	2	Gray	Solid wire: 0.2 to 1.5 mm² Stranded wire: 0.2 to 1.25 mm²	UL, CSA, CE	250V, 10A	RU2S, RM2S, GT5Y-2	1311		
		SU4S-11L	Spring-clamp	4				250V, 6A	RU4S, RU42S, RY4S, GT5Y-4	1311		
	SH	SH1B-05A	SH1B-05A	Standard	1	Black	M3.5 (coil terminal: M3) 2 mm² max.	—	250V, 10A (coil terminal: 7A)	RH1B	1312	
			SH1B-05C	Finger-safe		Gray		UL, CSA, TÜV			1312	
			SH2B-05A	SH2B-05A	Standard	2	Black	M3.5 2 mm² max.	—	250V, 10A	RH2B	1312
				SH2B-05C	Finger-safe		Gray		UL, CSA, TÜV			1312
				SH2B-05D	Slim	Black	UL, c-UL		1312			
				SH3B-05A	Standard	3	Black		—			RH3B
			SH3B-05C	Finger-safe	Gray		UL, CSA, TÜV		1313			
			SH4B-05A	SH4B-05A	Standard	4	Black		—		RH4B	1313
		SH4B-05C		Finger-safe	Gray		UL, CSA, TÜV		1313			
		SR		SR2P-05A	Standard	2	Black		M3.5 2 mm² max.		—	250V, 10A
			SR2P-05C	Finger-safe	Gray		UL, CSA, TÜV	1313				
			SR2P-06A	Standard	Black	—	1314					
			SR3P-05A	Standard	3	Black	M3.5 2 mm² max.	—	250V, 10A	RR3P, RR3PA, RR2KP, GT3 (11-pin)	1314	
	SR3P-05C		Finger-safe	Gray		UL, CSA, TÜV		1314				
	SR3P-06A		Standard	Black		—		1314				
	SR3B-05U	Standard	3	Gray	UL, CSA, TÜV	RR1BA, RR2BA, RR3B		1314				
	Panel Mount	SM	SM2S-51	Solder	2	Black	—	UL, CSA	250V, 10A	RM2S, RU2S, GT5Y-2	1315	
SY2S-51			Solder	2	—		UL, CSA	250V, 7A	RY2S, RY22S	1315		
SY4S-51		4		—	UL, CSA		250V, 7A (Note)	RY4S, RY2KS, RU4S, RU42S, GT5Y-U	1315			
SH		SH1B-51	Solder	1	Black	—	UL, CSA	250V, 10A (coil terminal: 7A)	RH1B	1315		
		SH2B-51		2		—	UL, CSA	250V, 10A	RH2B	1315		
		SH3B-51		3		—	UL, CSA		RH3B	1316		
		SH4B-51		4		—	UL, CSA		RH4B	1316		
SR		SR2P-511	Solder	2	Black	—	UL, CSA	250V, 10A	RR2P, GT3 (8-pin), GT5P	1316		
		SR2P-70	Wire-wrap			—	—			1316		
		SR3P-511	Solder	3		—	UL, CSA		RR3P, RR3PA, RR2KP, RR1BA, RR2BA, RR3B	1316		
		SR3P-70	Wire-wrap			—	—			1317		
		SR3B-51	Solder			—	UL, CSA			1317		
		PC Board Mount	SM	SM2S-61		PC board	2		Black	—	UL, CSA	250V, 10A
SM2S-62	—			UL, CSA	RM2S, RU2S			1317				
SY	SY2S-61		PC board	2	Black	—	UL, CSA	250V, 7A	RY2S, RY22S	1317		
	SY4S-61					4	—	UL, CSA	250V, 7A (Note)	RY4S, RY2KS, RU4S, RU42S, GT5Y-U	1317	
	SY4S-62			—			UL, CSA	250V, 7A	1318			
SH	SH1B-62		PC board	1	Black	—	UL, CSA	250V, 10A (coil terminal: 7A)	RH1B	1318		
	SH2B-62			2		—	UL, CSA	250V, 10A	RH2B	1318		
	SH3B-62			3		—	UL, CSA		RH3B	1318		
	SH4B-62	4		—		UL, CSA	RH4B		1318			

Note: When using only 2 poles of the 4-pole sockets SY4S-51 and SY4S-61, the UL rated current is 10A.

Terminal Screw Tightening Torque for DIN Rail Mount Sockets

Socket Series	Terminal Screw Tightening Torque	Socket Series	Terminal Screw Tightening Torque
SR	1.0 to 1.3 N·m	SM	0.6 to 1.0 N·m
SH	1.0 to 1.3 N·m	SY	0.6 to 1.0 N·m

Flush
Silhouette

Switches &
Pilot Lights

Display
Lights

LED
Illumination
Units

Display
Units

Safety
Products

Terminal
Blocks

Comm.
Terminals

AS-Interface

Relays &
Timers

Sockets

Circuit
Protectors

Power
Supplies

PLCs &
SmartRelay

Operator
Interfaces

Sensors

Control
Stations

Explosion
Protection

References

Relay Sockets

Sockets and Applicable Hold-down Springs

DIN Rail Mount Sockets

Socket Part No.	Applicable Relays and Timers	Hold-down Spring	
		Wire Spring	Leaf Spring
SM2S-05A	RM2S, RU2S	—	SFA-101, SFA-202
	GT5Y-2	—	SFA-202
SM2S-05C	RM2S, RU2S	SY4S-02F1	SFA-101, SFA-202
	GT5Y-2	—	SFA-202
SM2S-05D SM2S-05DF	RM2S	—	SFA-502
	RU2S	—	SFA-503
	GT5Y-2	—	SFA-511
SY2S-05A	RY2S, RY22S	—	SFA-101
SY2S-05C		SY2S-02F1	SFA-202
SY4S-05A	RY4S, RU4S, RU42S	—	SFA-101, SFA-202
	RY2KS, GT5Y-4	—	SFA-202
SY4S-05C	RY4S, RU4S, RU42S	SY4S-02F1	SFA-101, SFA-202
	RY2KS, GT5Y-4	—	SFA-202
SY4S-05D	RY4S, RU4S, RU42S	—	SFA-502
	RY2KS, GT5Y-4	—	SFA-511
SY4S-05DF	RY4S, RU4S, RU42S	—	SFA-502
	GT5Y-4	—	SFA-511
SU2S-11L	RU2S, RM2S	—	SFA-101, SFA-202
	GT5Y-2	—	SFA-202
SU4S-11L	RU4S, RU42S, RY4S	—	SFA-101, SFA-202
	GT5Y-4	—	SFA-202
SH1B-05A	RH1B	—	SFA-101, SFA-202
SH1B-05C		SY2S-02F1	SFA-101, SFA-202
SH2B-05A	RH2B	—	SFA-101, SFA-202
SH2B-05C	RH2B	SY2S-02F1	SFA-101, SFA-202
SH2B-05D	RH2B	—	SFA-502
SH3B-05A	RH3B	—	SFA-101
SH3B-05C		SH3B-05F1	SFA-202
SH4B-05A	RH4B	—	SFA-101
SH4B-05C		SH4B-02F1	SFA-202
SR2P-05A	RR2P	SR2B-02F1	—
SR2P-05C	GT5P	—	SFA-203
SR2P-06A	RR2P	SR2B-02F1	SFA-202
	GT3 (8-pin), GT5P	—	SFA-202
SR3P-05A SR3P-05C	RR3P, RR3PA	SR3B-02F1	—
	RR2KP	SR3P-06F3	—
	GT3 (11-pin)	—	SFA-203
	RR3P, RR3PA	SR3B-02F1	SFA-202
SR3P-06A	RR2KP	SR3P-06F3	—
	GT3 (11-pin)	—	SFA-202
SR3B-05U	RR1BA, RR2BA, RR3B	SR3B-02F1	SFA-202

Panel Mount Sockets and PC Board Mount Sockets

Socket Part No.	Applicable Relays and Timers	Hold-down Spring	
		Wire Spring	Leaf Spring
SM2S-51 SM2S-61	RM2S, RU2S	SY4S-51F1 (SY4S-02F1)	SFA-301 SFA-302
	GT5Y-2	—	SFA-302
SM2S-62	RM2S, RU2S	SY4S-51F1 (SY4S-02F1)	SFA-504
SY2S-51 SY2S-61	RY2S, RY22S	SY4S-51F1	SFA-301 SFA-302
SY4S-51 SY4S-61	RY4S, RU4S, RU42S	SY4S-51F1 (SY4S-02F1)	SFA-301 SFA-302
	RY2KS	SY4S-51F3 (SY4S-02F3)	SFA-302
	GT5Y-4	—	SFA-302
SY4S-62	RY4S, RU4S, RU42S	SY4S-51F1 (SY4S-02F1)	SFA-504
	RY2KS	SY4S-51F3 (SY4S-02F3)	—
SH1B-51 SH1B-62	RH1B	SY4S-51F1	SFA-301 SFA-302
SH2B-51	RH2B	SY4S-51F1 (SY4S-02F1)	SFA-301 SFA-302
SH2B-62	RH2B	SY4S-51F1 (SY4S-02F1)	SFA-504
SH3B-51 SH3B-62	RH3B	SY4S-51F1 (SH3B-05F1)	SFA-301 SFA-302
SH4B-51 SH4B-62	RH4B	SY4S-51F1 × 2 (SH4B-02F1)	SFA-301 SFA-302
SR2P-511 SR2P-70	RR2P	SR3P-01F1	—
	GT3 (8-pin)	—	SFA-402
	GT5P	—	SFA-302
SR3P-511 SR3P-70	RR3P, RR3PA	SR3P-01F1	—
	RR2KP	SR3P-511F3	—
	GT3 (11-pin)	—	SFA-402
SR3B-51	RR1BA, RR2BA, RR3B	SR3B-02F1	—

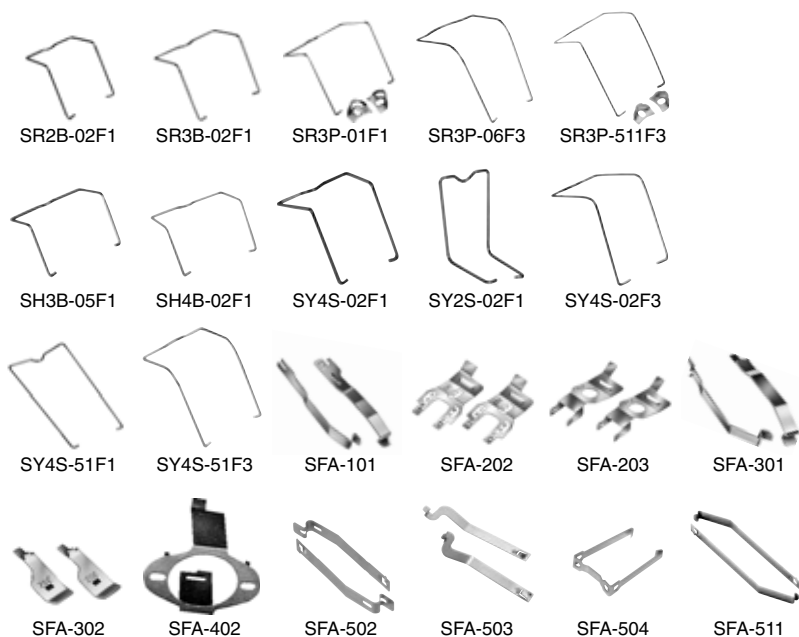
Note 1: When mounting relays with check button on panel mount or PC board mount sockets, use hold-down springs shown in (). Hold-down springs for relays with check button are not available for SR2P-511, SR2P-70, SR3P-511, and SR3P-70.

Note 2: For close mounting of panel mount or PC board mount sockets, use wire springs or SFA-302 leaf springs.

Note 3: SM2S-62 and SY4S-62 sockets cannot be used on GT5Y-2 and GT5Y-4 timers.

Hold-down Springs

Style	Part No.	Ordering No.	Package Quantity
Wire Spring	SR2B-02F1	SR2B-02F1PN10	10
	SR3B-02F1	SR3B-02F1PN10	
	SR3P-01F1	SR3P-01F1PN10	
	SR3P-06F3	SR3P-06F3PN10	
	SR3P-511F3	SR3P-511F3PN10	
	SH3B-05F1	SH3B-05F1PN10	
	SH4B-02F1	SH4B-02F1PN10	
	SY2S-02F1	SY2S-02F1PN10	
	SY4S-02F1	SY4S-02F1PN10	
	SY4S-02F3	SY4S-02F3PN10	
Leaf Spring	SY4S-51F1	SY4S-51F1PN10	20 (10 pairs)
	SY4S-51F3	SY4S-51F3PN10	
	SFA-101	SFA-101PN20	
	SFA-202	SFA-202PN20	10
	SFA-203	SFA-203PN20	
	SFA-301	SFA-301PN20	20 (10 pairs)
	SFA-302	SFA-302PN20	
	SFA-402	SFA-402PN10	10
	SFA-502	SFA-502PN20	20 (10 pairs)
	SFA-511	SFA-511PN20	20 (10 pairs)



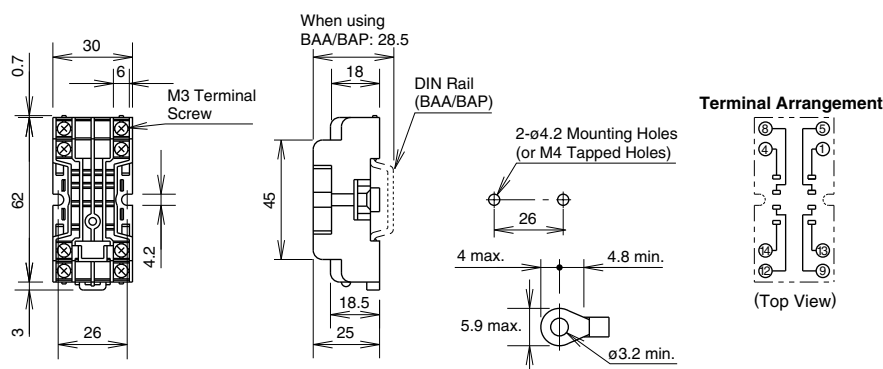
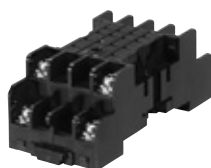
Accessories for Sockets

Name	Shape	Specifications	Part No.	Ordering No.	Package Quantity	Remarks
DIN Rail		Aluminum Weight: Approx. 200g	BAA1000	BAA1000PN10	10	Length: 1m Width: 35 mm
		Steel Weight: Approx. 320g	BAP1000	BAP1000PN10	10	
End Clip		Zinc-plated steel Weight: Approx. 15g	BNL5	BNL5PN10	10	Used on a DIN rail to fasten relay sockets
			BNL6	BNL6PN10	10	
DIN Rail Spacer		Plastic (black)	SA-406B	SA-406B	1	Thickness: 5 mm Used for adjusting spacing between sockets mounted on a DIN rail
End Spacer		Plastic (black)	SA-203B	SA-203B	1	Used for mounting DIN rail mount sockets directly on a panel surface
Intermediate Spacer			SA-204B	SA-204B	1	

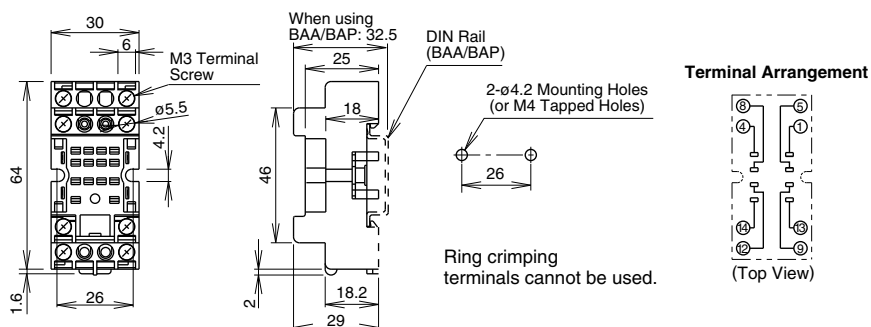
DIN Rail Mount Sockets

SM Series

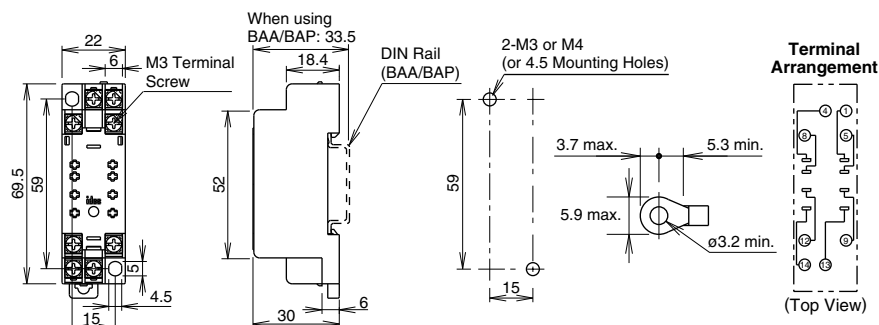
SM2S-05A



SM2S-05C

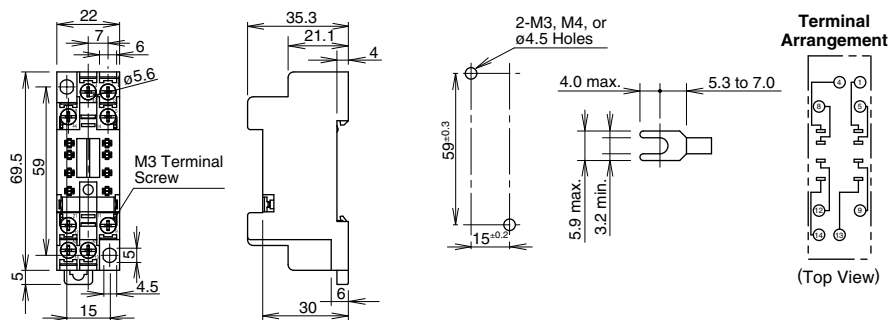


SM2S-05D



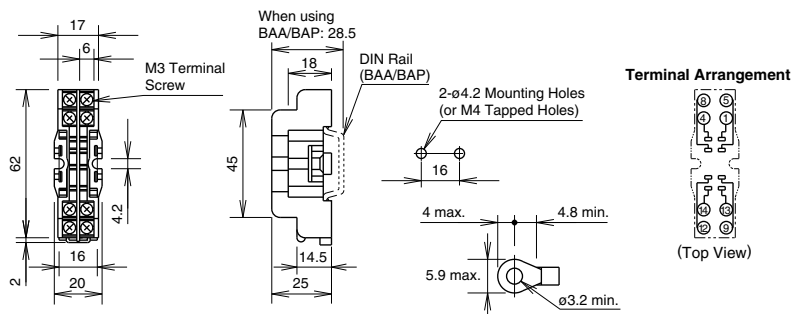
Relay Sockets

SM2S-05DF

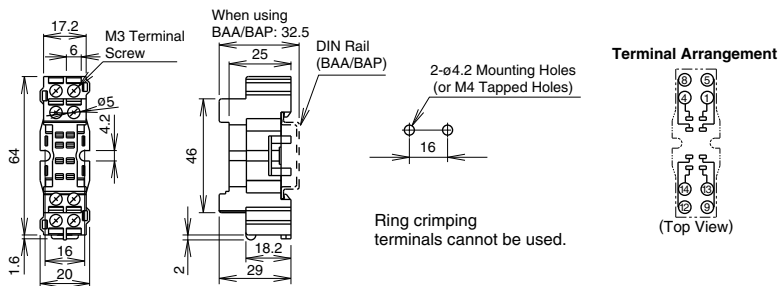


SY Series

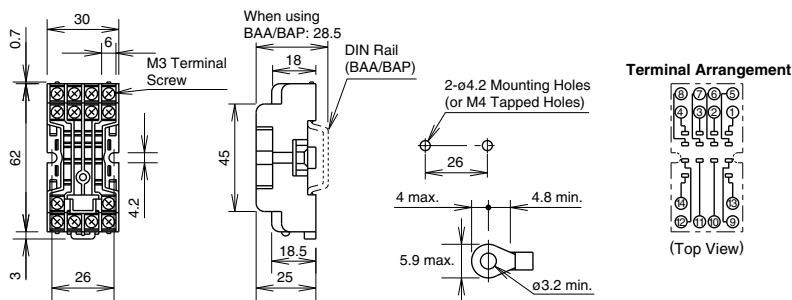
SY2S-05A



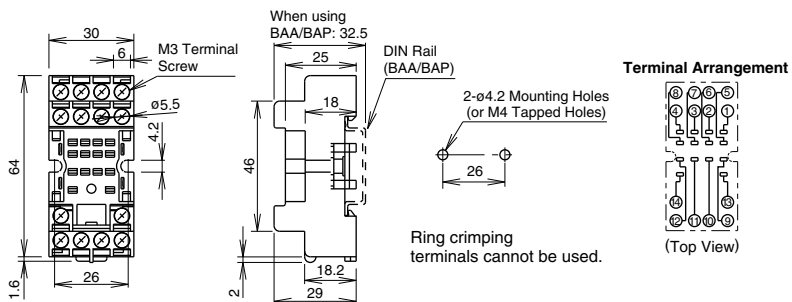
SY2S-05C



SY4S-05A

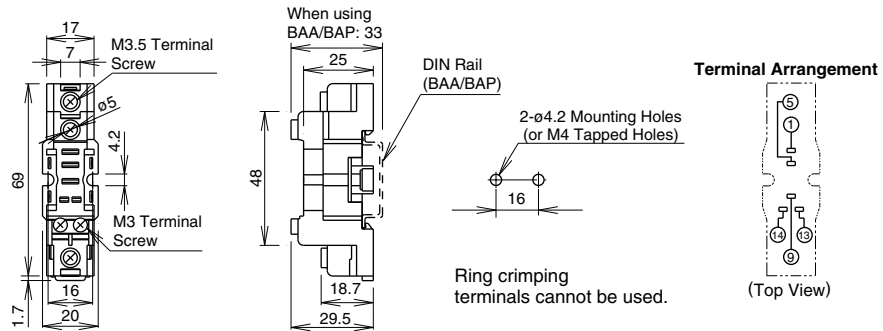
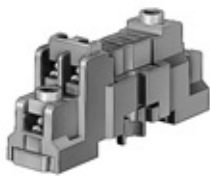


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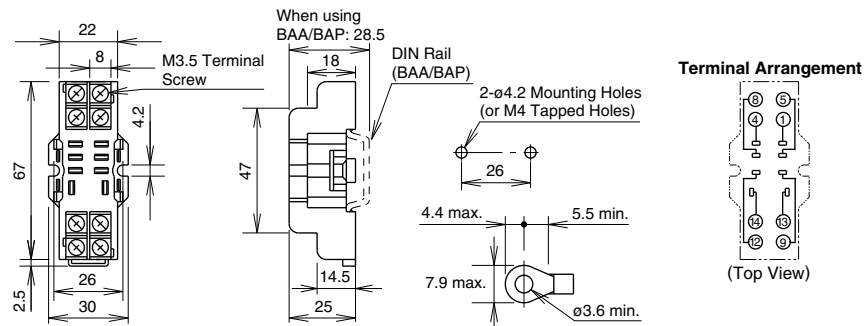


Relay Sockets

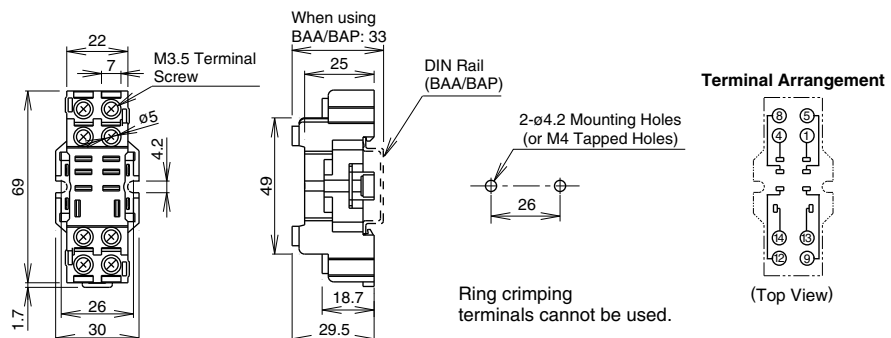
SH1B-05C



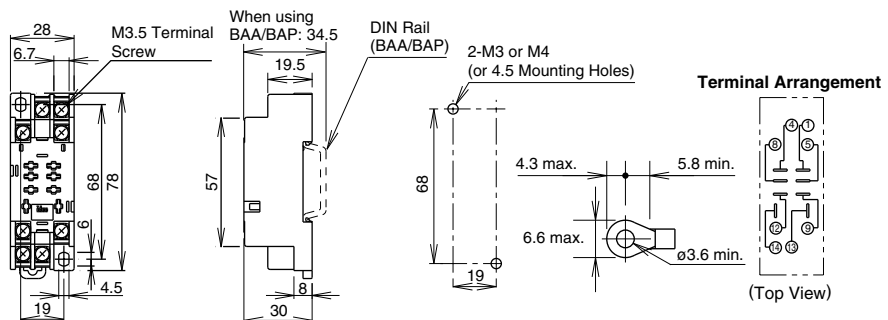
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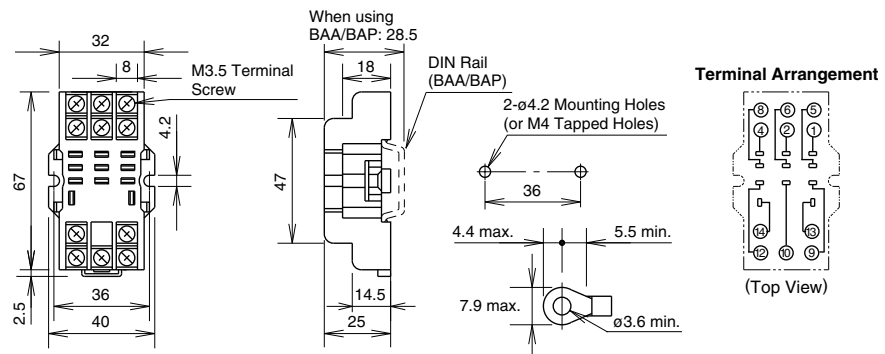
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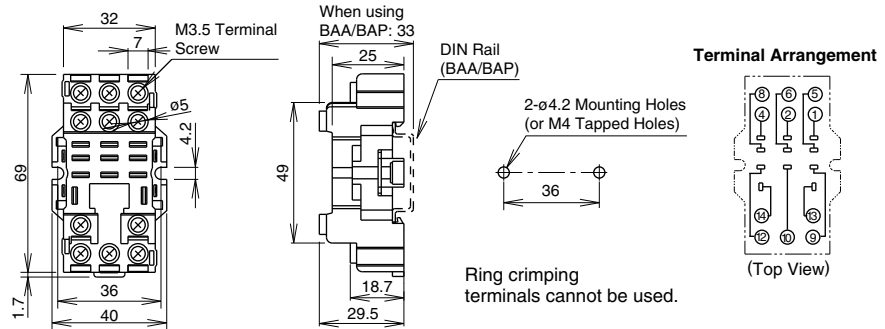
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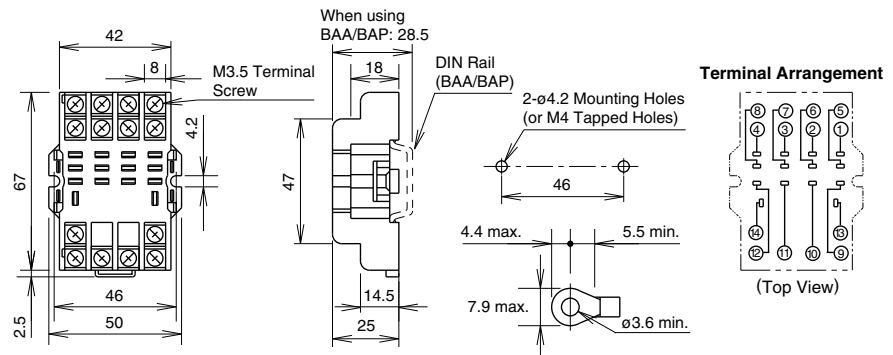
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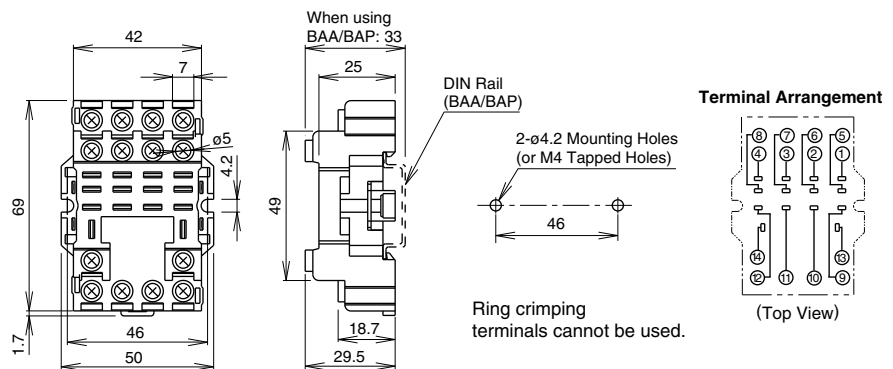
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SH4B-05A

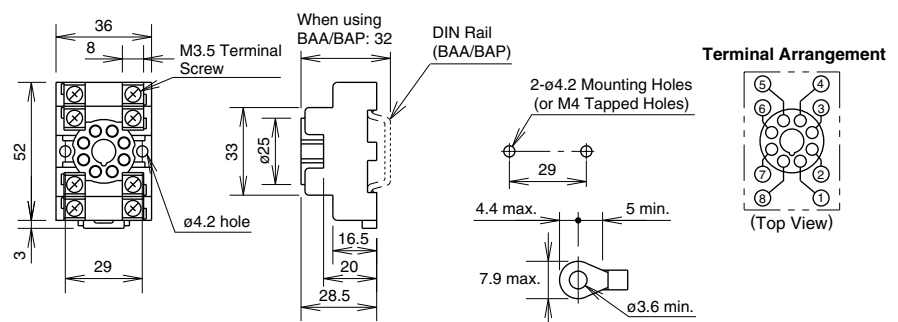


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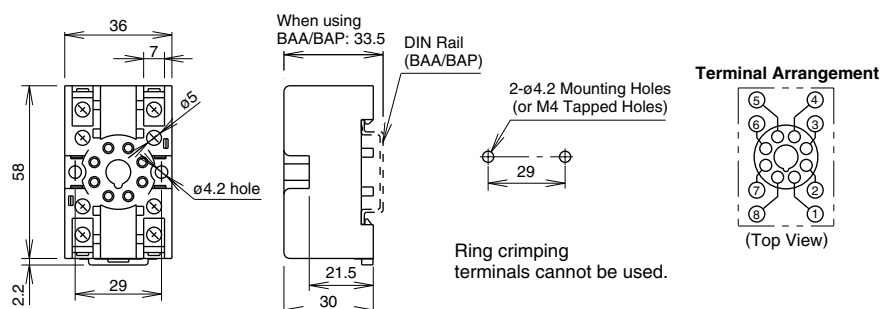


SR Series

SR2P-05A



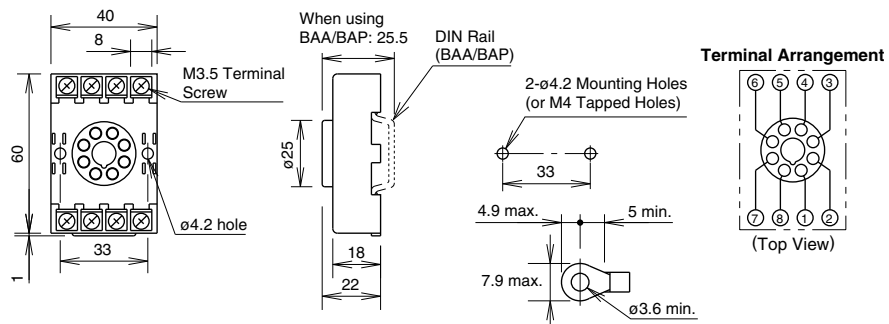
SR2P-05C



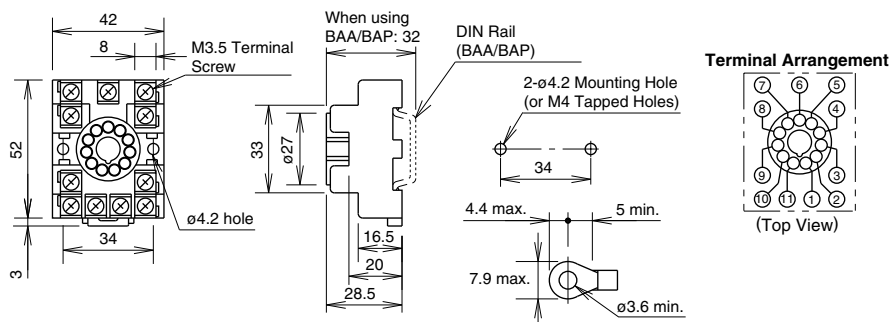
Flush Silhouette
Switches & Pilot Lights
Display Lights
LED Illumination Units
Display Units
Safety Products
Terminal Blocks
Comm. Terminals
AS-Interface
Relays & Timers
Sockets
Circuit Protectors
Power Supplies
PLCs & SmartRelay
Operator Interfaces
Sensors
Control Stations
Explosion Protection
References

Relay Sockets

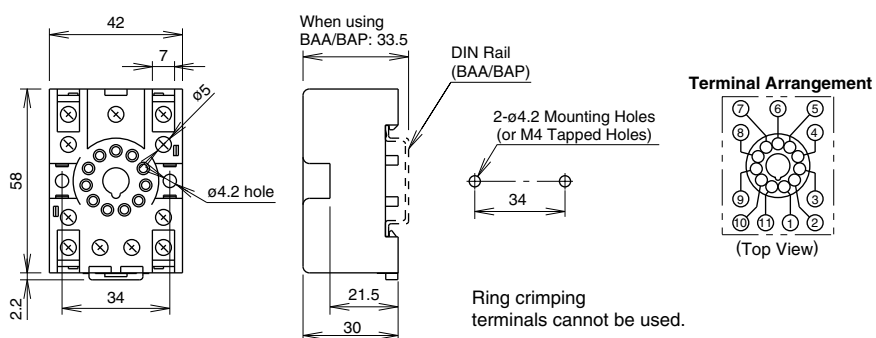
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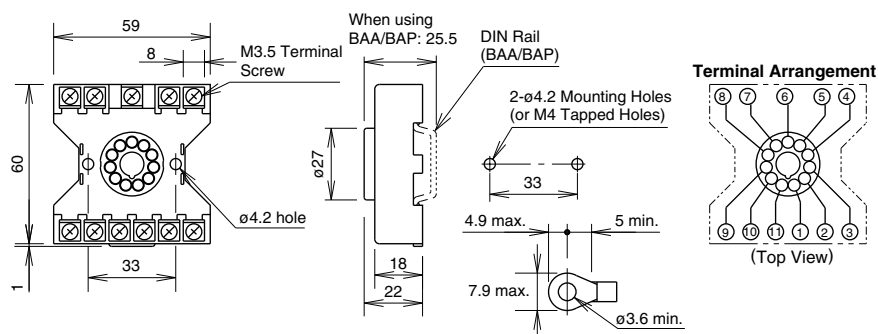
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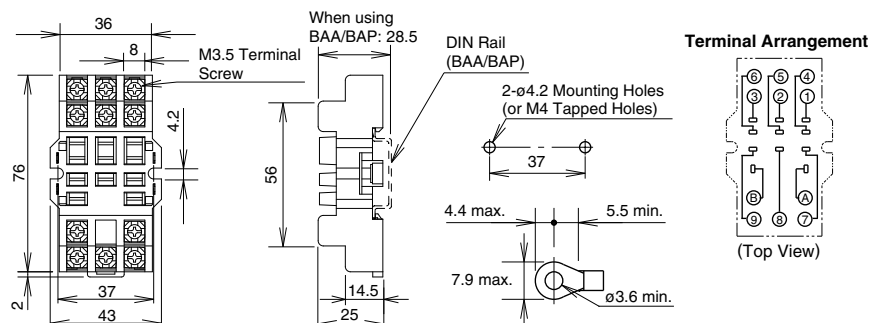
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SR3P-06A



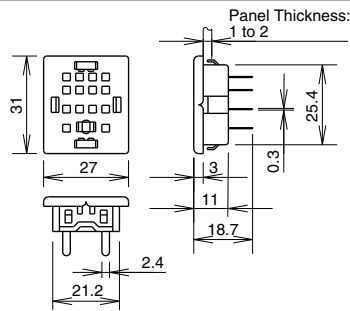
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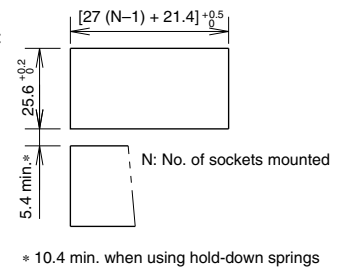
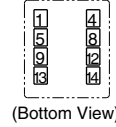
Panel Mount Sockets

SM Series

SM2S-51

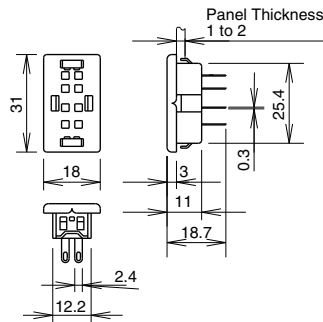


Terminal Arrangement

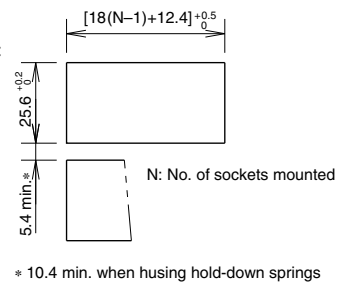
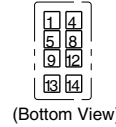


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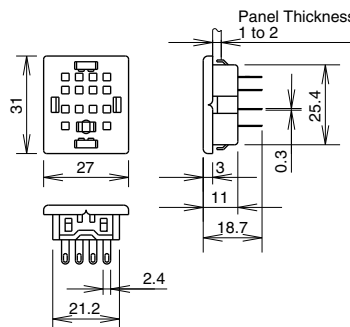
SY2S-51



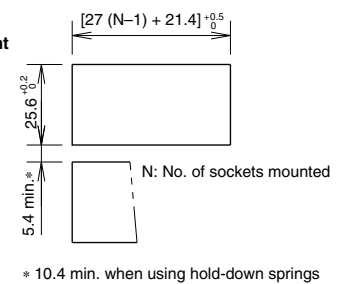
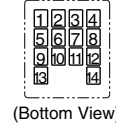
Terminal Arrangement



SY4S-51

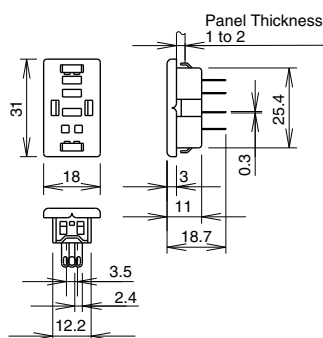


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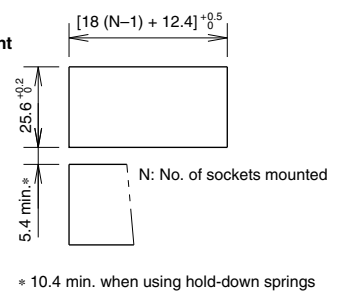
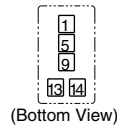


SH Series

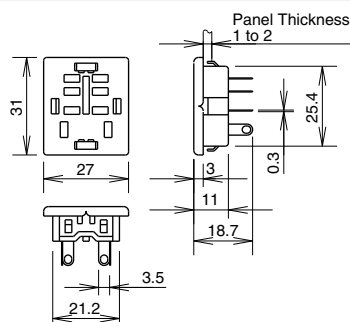
SH1B-51



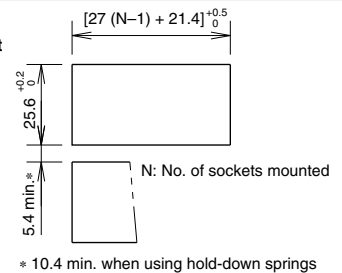
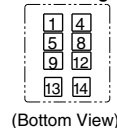
Terminal Arrangement



SH2B-51



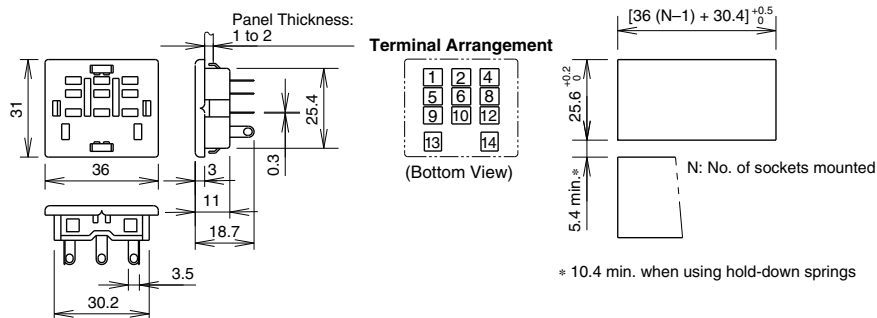
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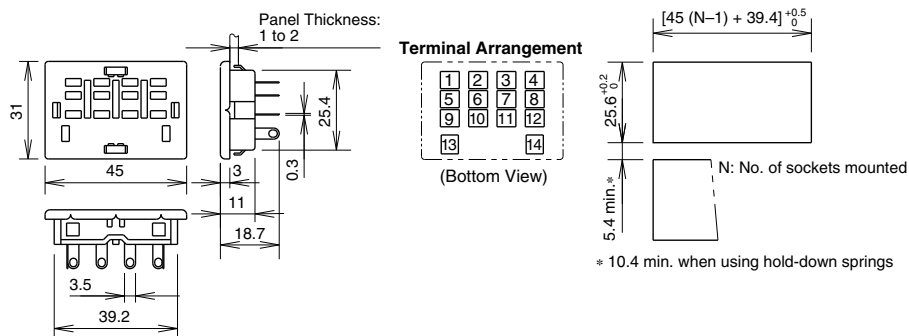
Flush Silhouette
Switches & Pilot Lights
Display Lights
LED Illumination Units
Display Units
Safety Products
Terminal Blocks
Comm. Terminals
AS-Interface
Relays & Timers
Sockets
Circuit Protectors
Power Supplies
PLCs & SmartRelay
Operator Interfaces
Sensors
Control Stations
Explosion Protection
References

Relay Sockets

SH3B-51

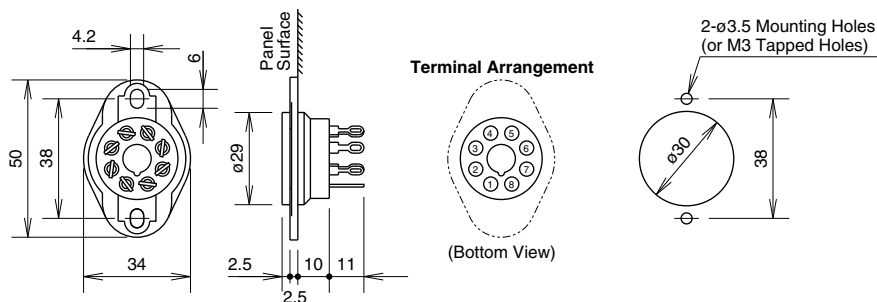


SH4B-51

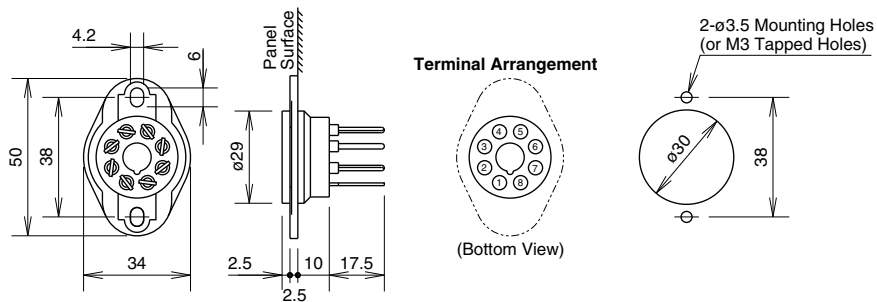


SR Series

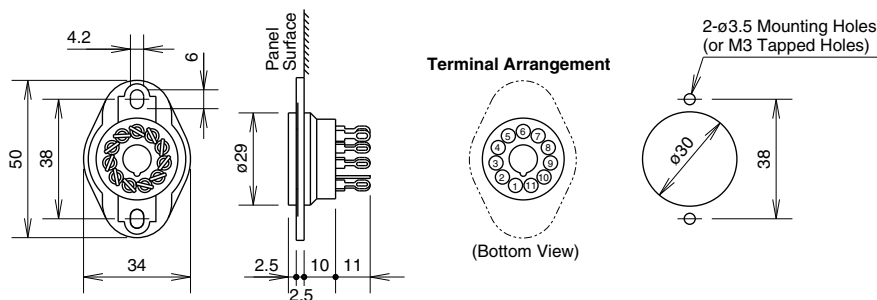
SR2P-511



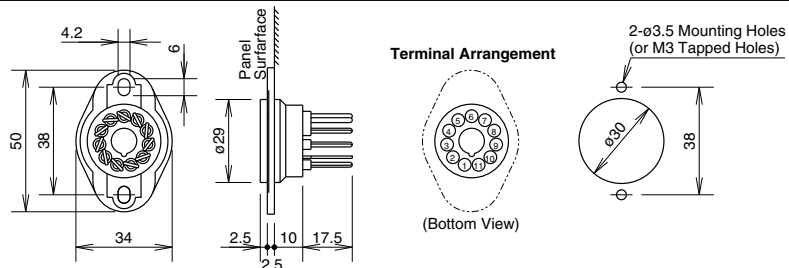
SR2P-70



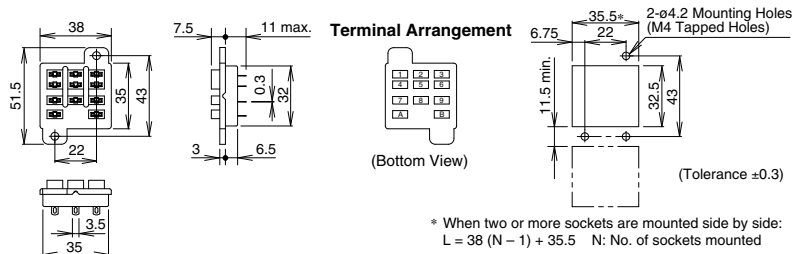
SR3P-511



SR3P-70



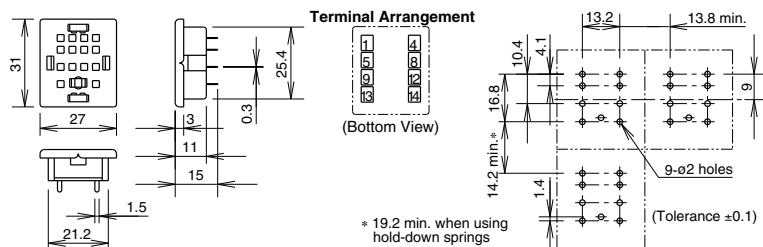
SR3B-51



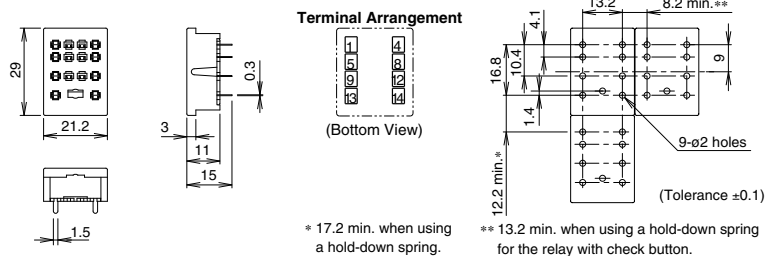
PC Board Mount Sockets

SM Series

SM2S-61

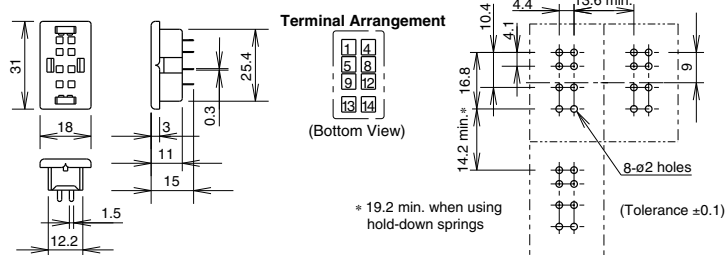


SM2S-62

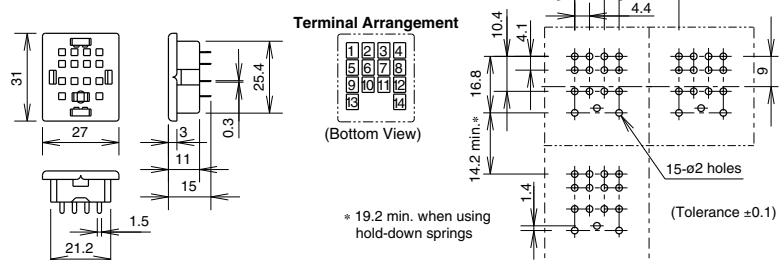


SY Series

SY2S-61



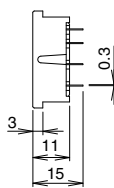
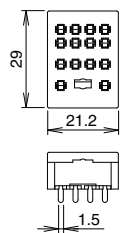
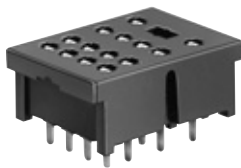
SY4S-61



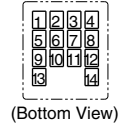
Flush Silhouette
Switches & Pilot Lights
Display Lights
LED Illumination Units
Display Units
Safety Products
Terminal Blocks
Comm. Terminals
AS-Interface
Relays & Timers
Sockets
Circuit Protectors
Power Supplies
PLCs & SmartRelay
Operator Interfaces
Sensors
Control Stations
Explosion Protection
References

Relay Sockets

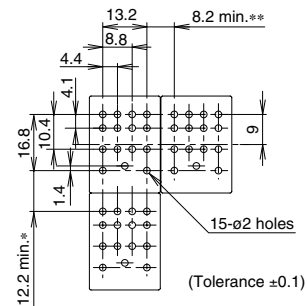
SY4S-62



Terminal Arrangement



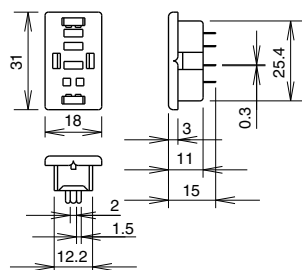
(Bottom View)



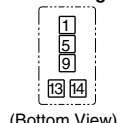
* 17.2 min. when using a hold-down spring.
** 13.2 min. when using a hold-down spring for the relay with check button

SH Series

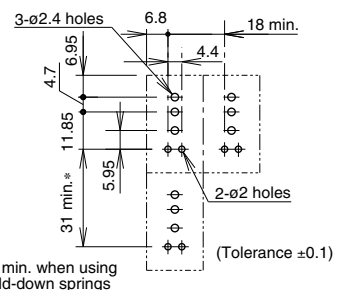
SH1B-62



Terminal Arrangement

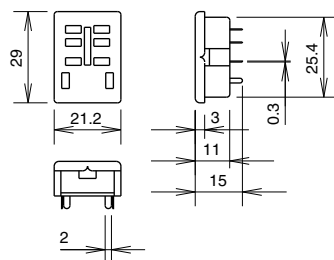


(Bottom View)

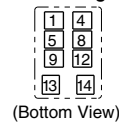


* 36 min. when using hold-down springs

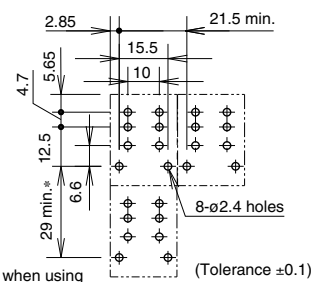
SH2B-62



Terminal Arrangement

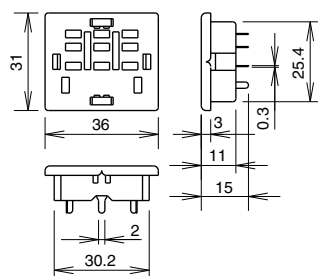


(Bottom View)

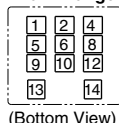


* 34 min. when using hold-down springs

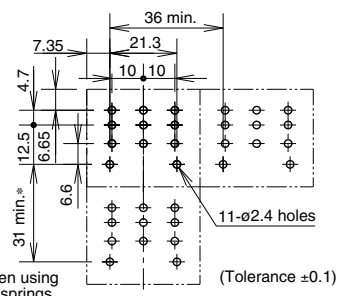
SH3B-62



Terminal Arrangement

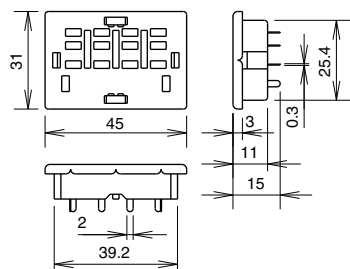


(Bottom View)

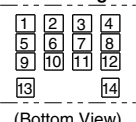


* 36 min. when using hold-down springs

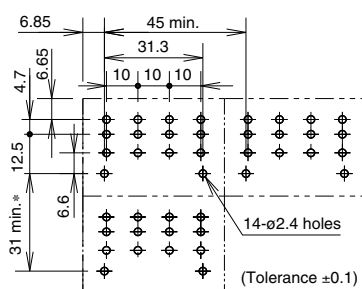
SH4B-62



Terminal Arrangement



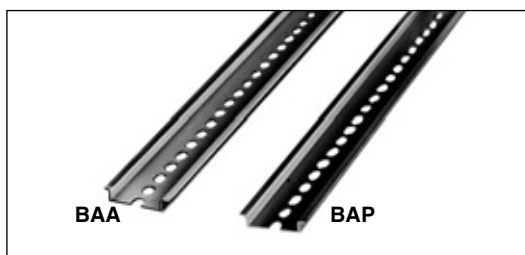
(Bottom View)



* 36 min. when using hold-down springs

Accessories

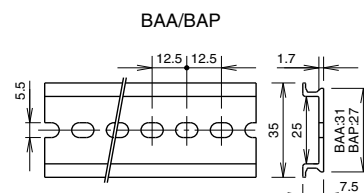
DIN Rails



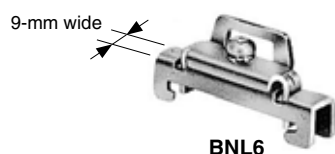
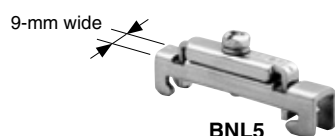
The BAA is a 35-mm-wide DIN rail made of durable extruded aluminum.

The BAP is a 35-mm-wide DIN rail made of rust proof sheet steel.

Material	Part No.	Ordering No.	Package Quantity
Aluminum	BAA1000	BAA1000PN10	10
Steel	BAP1000	BAP1000PN10	10



End Clip

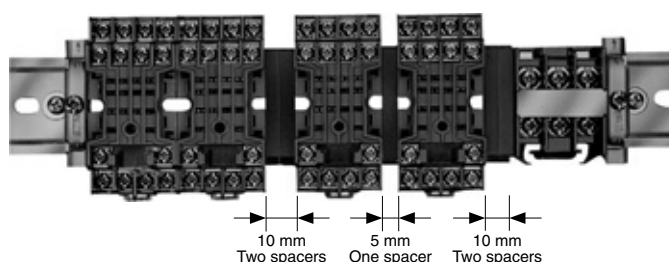


Use of the BNL5 or BNL6 end clip is recommended at the both ends of the socket row mounted on the DIN rail to prevent the sockets from moving sideways.

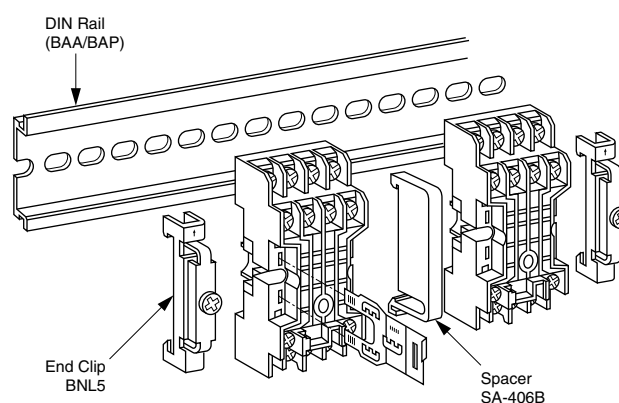
Part No.	Ordering No.	Package Quantity
BNL5	BNL5PN10	10
BNL6	BNL6PN10	10

Application Example of End Clip and DIN Rail Spacer

Use DIN rail spacers for adding space between adjoining sockets to prevent miswiring and identify wiring groups.



Installation of End Clip and DIN Rail Spacer



DIN Rail Spacer



Spacers of 5-mm thick are designed to provide spacing between DIN rail mount sockets when mounted on 35-mm wide DIN rails. The spacers snap on and off the rail like sockets.

Part No.	Package Quantity	Color
SA-406B	1	Black

Flush Silhouette

Switches & Pilot Lights

Display Lights

LED Illumination Units

Display Units

Safety Products

Terminal Blocks

Comm. Terminals

AS-Interface

Relays & Timers

Sockets

Circuit Protectors

Power Supplies

PLCs & SmartRelay

Operator Interfaces

Sensors

Control Stations

Explosion Protection

References

Relay Sockets

Surface Mounting of DIN Rail Mount Socket

End Spacer



Part No.	Package Quantity	Color
SA-203B	1	Black

Intermediate Spacer



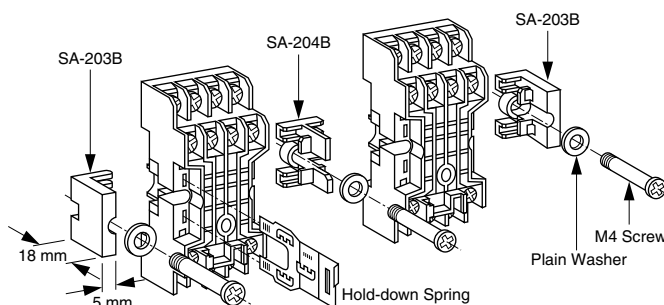
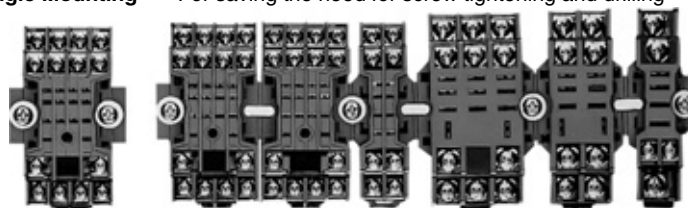
Part No.	Package Quantity	Color
SA-204B	1	Black

The end spacer and intermediate spacer are used for mounting DIN rail mount sockets on panel surfaces. In collective mounting using these spacers, screws can be eliminated at every other socket. Mounting centers are the same in single mounting and collective mounting.

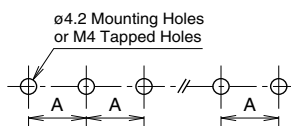
Note: DIN rail mount sockets can also mount directly on panel surfaces without using these spacers, then the mounting centers are different from when using spacers.

Single Mounting

Collective Mounting
For saving the need for screw tightening and drilling



Socket	A (mm)
SR3B-05A	44
SH1B-05A	21
SH2B-05A	31
SH3B-05A	41
SH4B-05A	51
SM2S-05A	31
SY2S-05A	21
SY4S-05A	31

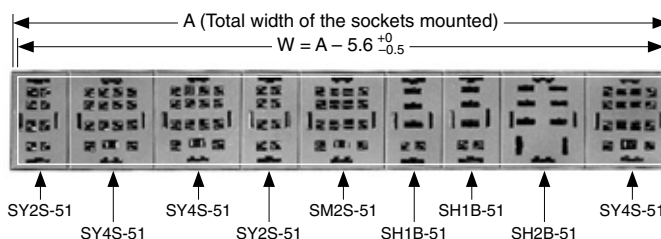
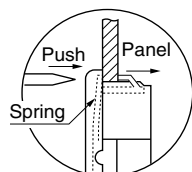


Collective Mounting of Panel Mount Sockets

The SY, SM, and SH series panel mount sockets are designed to mount in panel cut-outs collectively. These sockets can be mounted in the same panel cut-out due to the standardized size.

Mounting into Panel Cut-out

To mount, insert the sockets with mounting springs facing top and bottom edges of the panel cut-out. Push the mounting spring using a screwdriver until the mounting spring clicks into the panel.



$$\text{Panel cut-out width } W = 18 + 27 + 27 + 18 + 27 + 18 + 18 + 27 + 27 - 5.6 = 201.4 \begin{smallmatrix} +0 \\ -0.5 \end{smallmatrix}$$

Socket Width

Socket	Width
SH1B-51	18 mm
SH2B-51	27 mm
SH3B-51	36 mm
SH4B-51	45 mm
SM2S-51	27 mm
SY2S-51	18 mm
SY4S-51	27 mm

Soldering

When soldering, use a soldering iron of 60W (350°C), and quickly complete soldering within approximately 3 seconds. Sn-Ag-Cu is recommended for lead-free soldering. Ensure to keep the solder away from the socket as much as possible. Do not apply external force by bending the terminal or pulling the wire.