

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	—	250V, 7A	RM2S, RU2S, GT5Y-2	M-17		
		SM2S-05C	Finger-safe		Gray	2 mm² max.	UL, CSA, TÜV	250V, 7A (UL, TÜV: 10A)		M-17		
		SM2S-05D	Slim		Black	M3, 1.25 mm² (2 mm² max.)	UL, c-UL	250V, 10A		M-17		
		SM2S-05DF	Finger-safe				UL, c-UL, CE		RM2S, RU2S	M-18		
	SY	SY2S-05A	Standard	2	Black	M3	—	250V, 7A	RY2S	M-18		
		SY2S-05C	Finger-safe		Gray		2 mm² max.			UL, CSA, TÜV	M-18	
		SY4S-05A	Standard	4	Black	—	250V, 6A	RY4S, RY2KS, RU4S, RU42S, GT5Y-U	M-18			
		SY4S-05C	Finger-safe		Gray	UL, CSA, TÜV			M-18			
		SY4S-05D	Slim		Black	M3, 1.25 mm² (2 mm² max.)			UL, c-UL	M-19		
		SY4S-05DF	Finger-safe						UL, c-UL, CE	RU4S, RU42S, RY4S	M-19	
	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	M-19		
		SU4S-11L	Spring-clamp	4				250V, 6A	RU4S, RU42S, RY4S, GT5Y-4	M-19		
	SH	SH1B-05A	SH1B-05A	Standard	1	Black	M3.5 (coil terminal: M3) 2 mm² max.	—	250V, 10A (coil terminal: 7A)	RH1B	M-19	
			SH1B-05C	Finger-safe		Gray		UL, CSA, TÜV			M-20	
			SH2B-05A	SH2B-05A	Standard	2	Black	M3.5 2 mm² max.	—	250V, 10A	RH2B	M-20
				SH2B-05C	Finger-safe		Gray		UL, CSA, TÜV			M-20
				SH2B-05D	Slim	Black	UL, c-UL		M-20			
				SH3B-05A	Standard	3	Black		—			RH3B
			SH3B-05C	Finger-safe	Gray		UL, CSA, TÜV		M-21			
			SH4B-05A	SH4B-05A	Standard	4	Black		—		RH4B	M-21
		SH4B-05C		Finger-safe	Gray		UL, CSA, TÜV		M-21			
		SR	SR2P-05A	Standard	2	Black	M3.5 2 mm² max.		—		250V, 10A	RR2P, GT3 (8-pin), GT5P
			SR2P-05C	Finger-safe		Gray		UL, CSA, TÜV	M-21			
			SR2P-06A	Standard	Black	—	M-22					
			SR3P-05A	Standard	3	Black	M3.5 2 mm² max.	—	250V, 10A	RR3P, RR3PA, RR2KP, GT3 (11-pin)	M-22	
			SR3P-05C	Finger-safe		Gray		UL, CSA, TÜV			M-22	
	SR3P-06A		Standard	Black		—		M-22				
	SR3B-05U	Standard	3	Gray	UL, CSA, TÜV	RR1BA, RR2BA, RR3B	M-22					
Panel Mount	SM	SM2S-51	Solder	2	Black	—	UL, CSA	250V, 10A	RM2S, RU2S, GT5Y-2	M-23		
	SY	SY2S-51	Solder	2		—	UL, CSA	250V, 7A	RY2S, RY22S	M-23		
		SY4S-51		4		—	UL, CSA	250V, 7A (Note)	RY4S, RY2KS, RU4S, RU42S, GT5Y-U	M-23		
	SH	SH1B-51	Solder	1	—	UL, CSA	250V, 10A (coil terminal: 7A)	RH1B	M-23			
		SH2B-51		2	Black	—	UL, CSA	250V, 10A	RH2B	M-23		
		SH3B-51		3	—	UL, CSA	RH3B		M-24			
		SH4B-51		4	—	UL, CSA	RH4B		M-24			
	SR	SR2P-511	Solder	2	Black	—	UL, CSA	250V, 10A	RR2P, GT3 (8-pin), GT5P	M-24		
		SR2P-70	Wire-wrap			—	—			M-24		
		SR3P-511	Solder	3		—	UL, CSA		RR3P, RR3PA, RR2KP,	M-24		
		SR3P-70	Wire-wrap			—	—			M-25		
		SR3B-51	Solder			—	UL, CSA			RR1BA, RR2BA, RR3B	M-25	
PC Board Mount		SM	SM2S-61	PC board		2	Black		—	UL, CSA	250V, 10A	RM2S, RU2S, GT5Y-2
	SM2S-62		—		UL, CSA			RM2S, RU2S	M-25			
	SY	SY2S-61	PC board	2	Black	—	UL, CSA	250V, 7A	RY2S, RY22S	M-25		
		SY4S-61		4		—	UL, CSA	250V, 7A (Note)	RY4S, RY2KS, RU4S, RU42S, GT5Y-U	M-25		
						SY4S-62	—	UL, CSA		250V, 7A	M-26	
	SH	SH1B-62	PC board	1	Black	—	UL, CSA	250V, 10A (coil terminal: 7A)	RH1B	M-26		
		SH2B-62		2		—	UL, CSA	250V, 10A	RH2B	M-26		
		SH3B-62		3		—	UL, CSA		RH3B	M-26		
SH4B-62		4		—		UL, CSA	RH4B		M-26			

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

Switches & Pilot Lights

Flush Silhouette Switches

Emergency Stop Switches

Control Stations

Display Lights

Operator Interfaces

PLCs

Softwares

Relays

Sockets

Timers

Terminal Blocks

Circuit Protectors

Power Supplies

Sensors

Ex-proof Control Boxes

Barriers

LEDs

Safety Products

Information

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	RM2S	—	SFA-502
	RU2S	—	SFA-503
SM2S-05DF	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
	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	—	—	—
	—	—	—
SH1B-05C	RH1B	SY2S-02F1	SFA-101, SFA-202
SH2B-05A	RH2B	—	SFA-101, SFA-202
SH2B-05C	RH2B	SY4S-02F1	SFA-101, SFA-202
SH2B-05D	RH2B	—	SFA-502
SH3B-05A	—	—	—
	—	—	—
SH3B-05C	RH3B	SH3B-05F1	SFA-101
SH4B-05A	—	—	SFA-101
SH4B-05C	RH4B	SH4B-02F1	SFA-202
SR2P-05A	—	—	—
	—	—	—
SR2P-05C	RR2P	SR2B-02F1	SFA-203
SR2P-06A	GT5P	—	SFA-202
	—	—	—
SR3P-05A	RR3P, RR3PA	SR3B-02F1	—
	RR2KP	SR3P-06F3	—
SR3P-05C	GT3 (11-pin)	—	SFA-203
	—	—	—
SR3P-06A	RR3P, RR3PA	SR3B-02F1	SFA-202
	RR2KP	SR3P-06F3	—
SR3B-05U	GT3 (11-pin)	—	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	RM2S, RU2S	SY4S-51F1 (SY4S-02F1)	SFA-301
	GT5Y-2	—	SFA-302
SM2S-62	RM2S, RU2S	SY4S-51F1 (SY4S-02F1)	SFA-504
SY2S-51	RY2S, RY22S	SY4S-51F1	SFA-301
	—	—	SFA-302
SY4S-51	RY4S, RU4S, RU42S	SY4S-51F1 (SY4S-02F1)	SFA-301
	—	—	SFA-302
SY4S-61	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	RH1B	SY4S-51F1	SFA-301
SH1B-62	—	—	SFA-302
SH2B-51	RH2B	SY4S-51F1 (SY4S-02F1)	SFA-301
SH2B-62	RH2B	SY4S-51F1 (SY4S-02F1)	SFA-504
SH3B-51	RH3B	SY4S-51F1 (SH3B-05F1)	SFA-301
SH3B-62	—	—	SFA-302
SH4B-51	RH4B	SY4S-51F1 × 2 (SH4B-02F1)	SFA-301
SH4B-62	—	—	SFA-302
SR2P-511	RR2P	SR3P-01F1	—
	—	—	—
SR2P-70	GT3 (8-pin)	—	SFA-402
	GT5P	—	SFA-302
SR3P-511	RR3P, RR3PA	SR3P-01F1	—
	—	—	—
SR3P-70	RR2KP	SR3P-511F3	—
	GT3 (11-pin)	—	SFA-402
SR3B-51	RR1BA, RR2BA, RR3B	SR3B-02F1	—

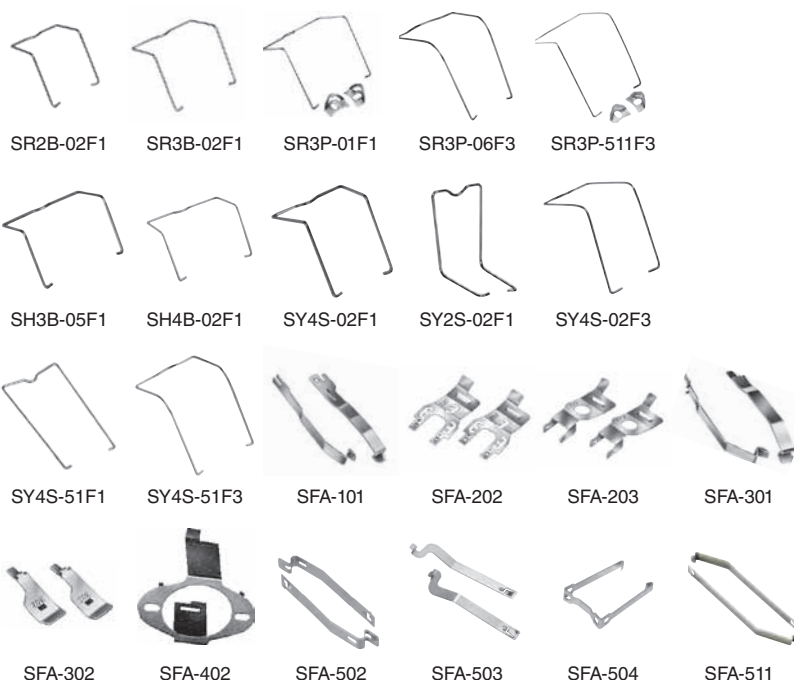
Note 1: When mounting relays with check button on panel mount or PC board mount sockets, use hold-down springs shown in (). Hold-down springs for relays with check button are not available for SR2P-511, SR2P-70, SR3P-511, and SR3P-70.

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	
	SY4S-51F1	SY4S-51F1PN10	
	SY4S-51F3	SY4S-51F3PN10	
Leaf Spring	SFA-101	SFA-101PN20	20 (10 pairs)
	SFA-202	SFA-202PN20	
	SFA-203	SFA-203PN20	
	SFA-301	SFA-301PN20	
	SFA-302	SFA-302PN20	10
	SFA-402	SFA-402PN10	20
	SFA-502	SFA-502PN20	(10 pairs)
	SFA-503	SFA-503PN20	10
	SFA-504	SFA-504PN10	20 (10 pairs)
	SFA-511	SFA-511PN20	



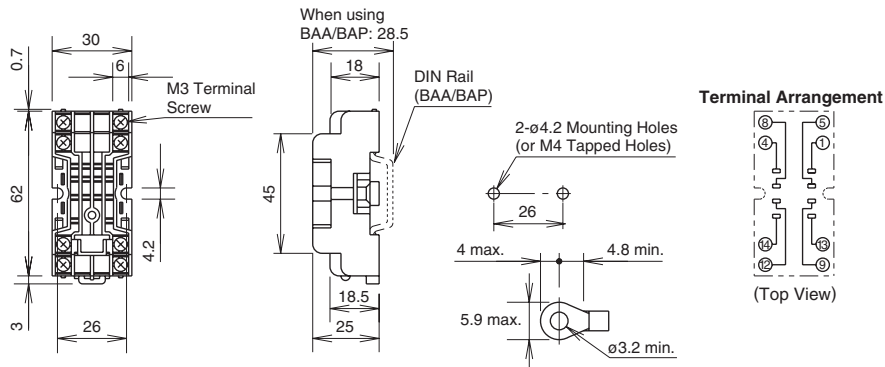
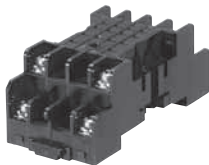
Accessories for Sockets

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	

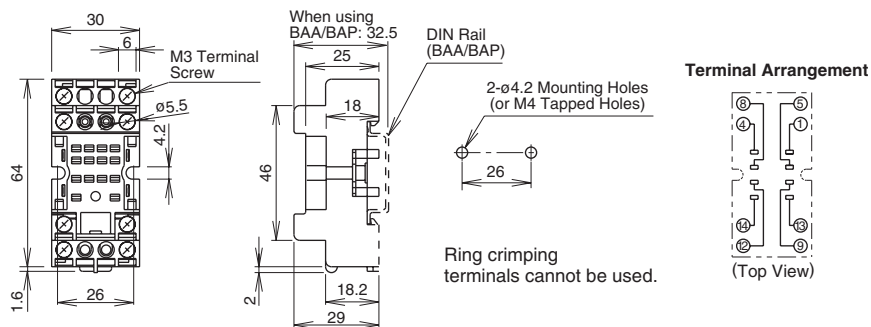
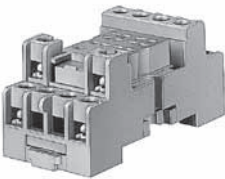
DIN Rail Mount Sockets

SM Series

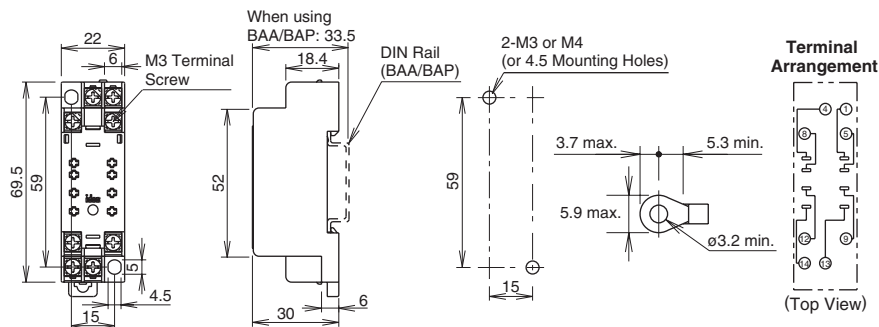
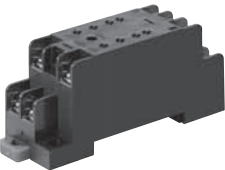
SM2S-05A



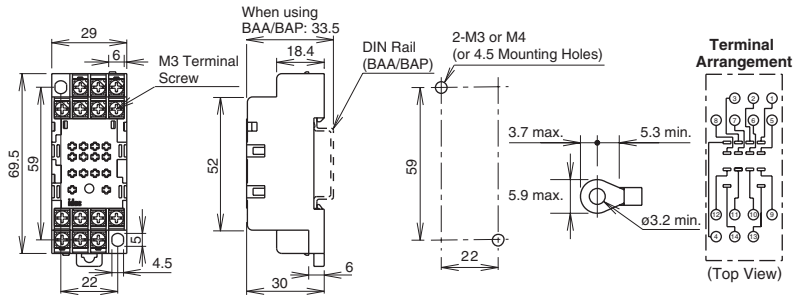
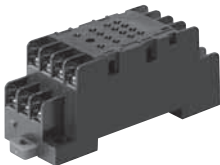
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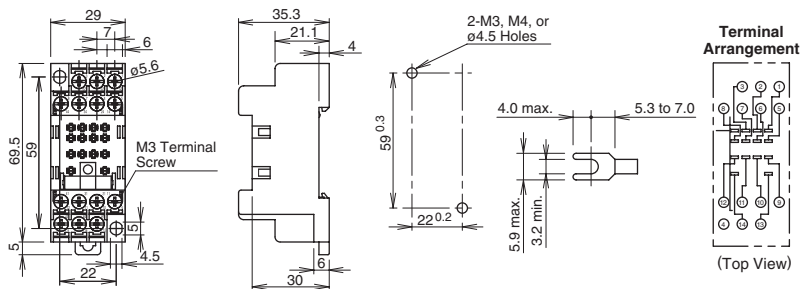
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SY4S-05D

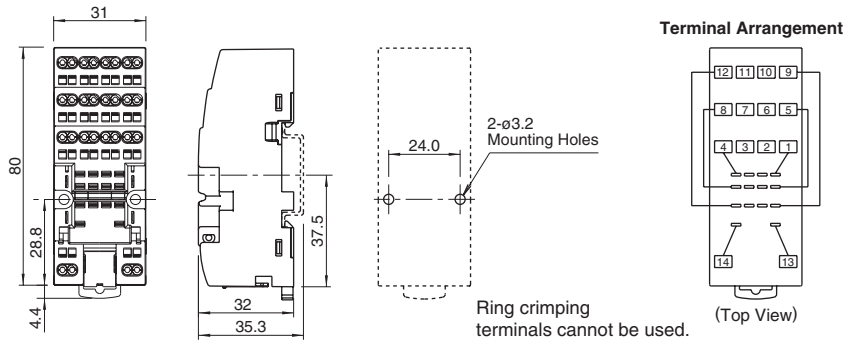


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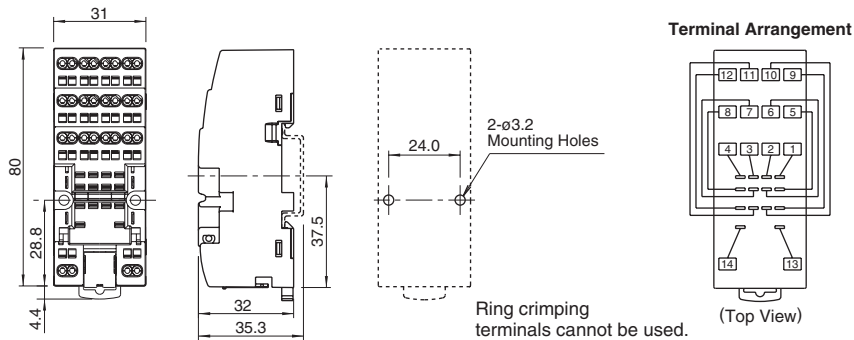
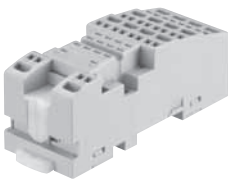


SU Series

SU2S-11L

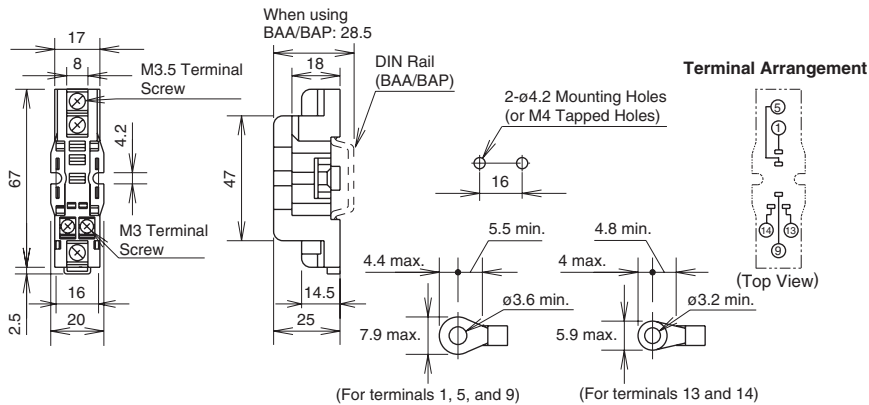


SU4S-11L



SH Series

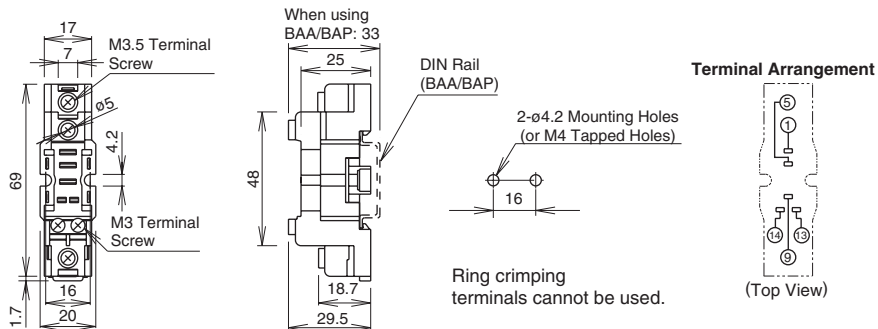
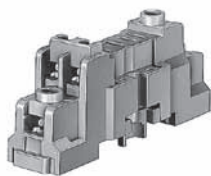
SH1B-05A



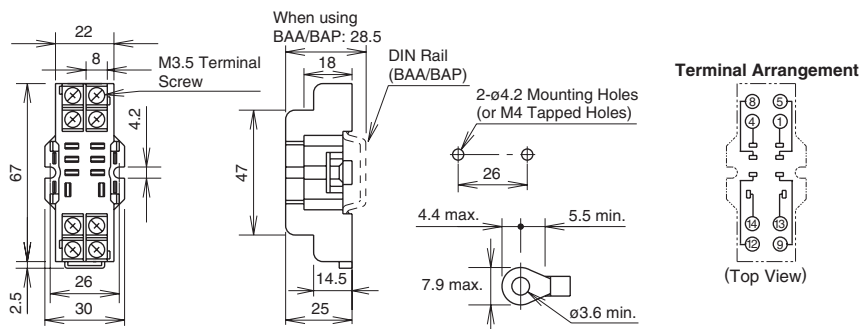
Switches & Pilot Lights
Flush Silhouette Switches
Emergency Stop Switches
Control Stations
Display Lights
Operator Interfaces
PLCs
Softwares
Relays
Sockets
Timers
Terminal Blocks
Circuit Protectors
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Safety Products
Information

Relay Sockets

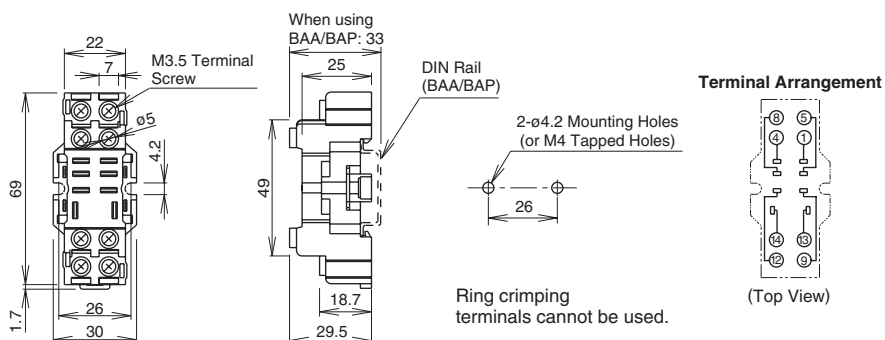
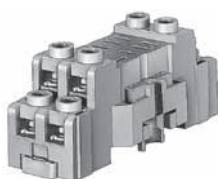
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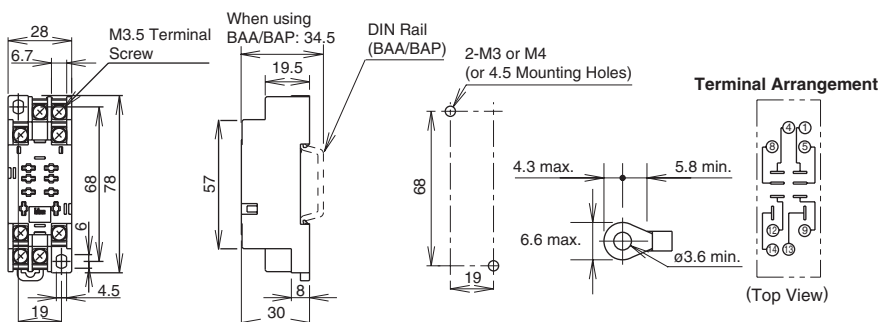
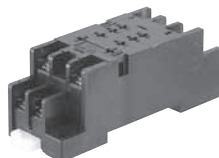
SH2B-05A



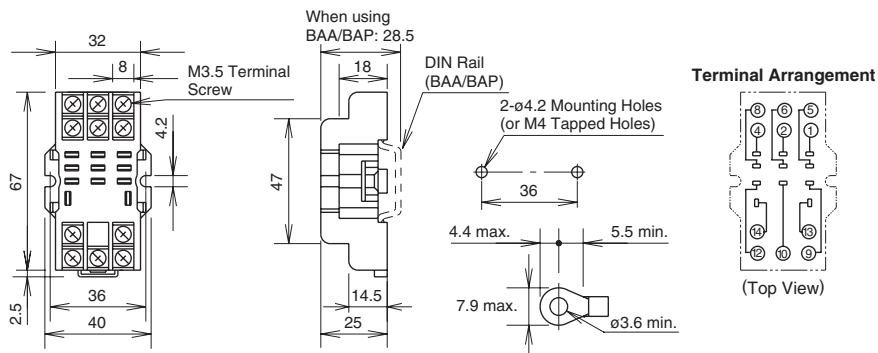
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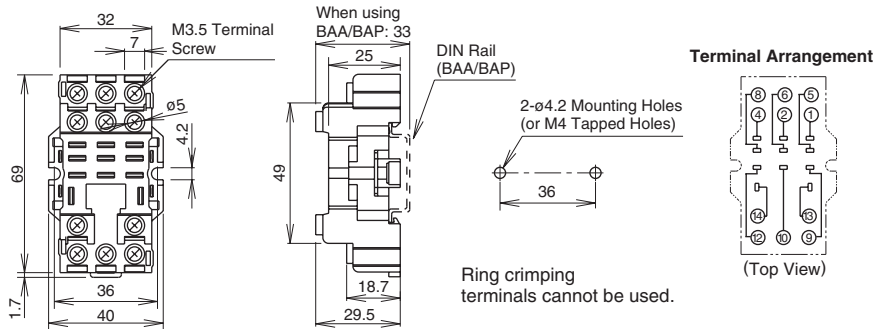
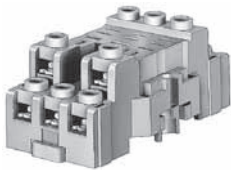
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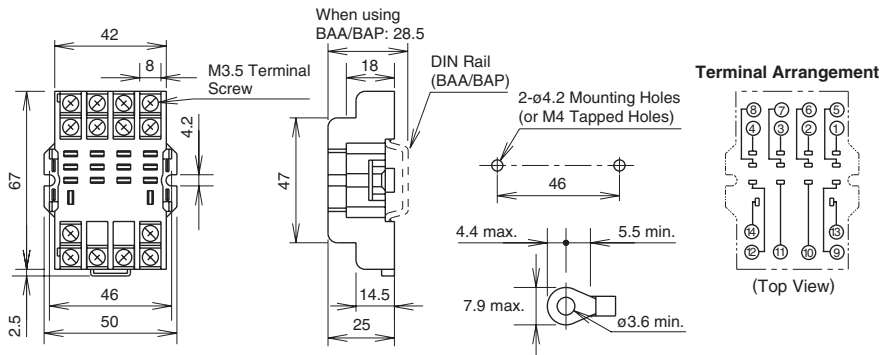
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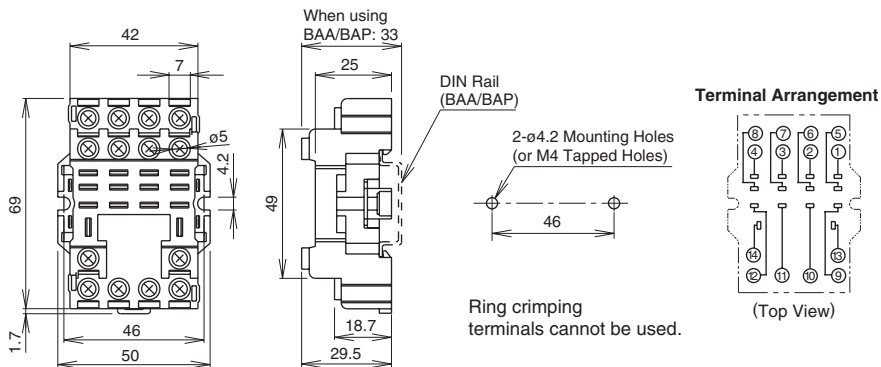
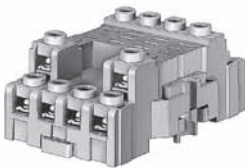
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SH4B-05A

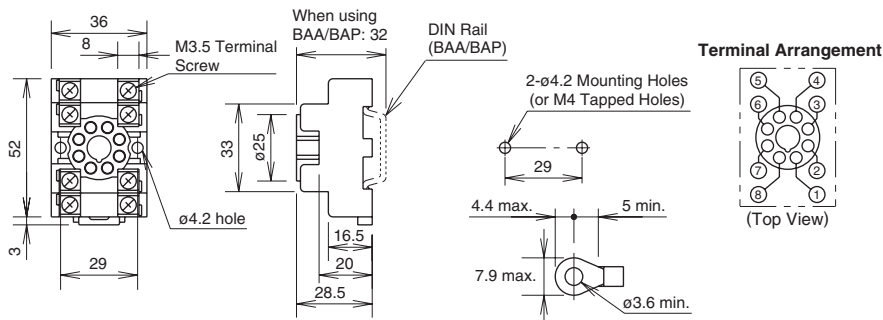
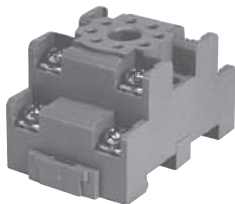


SH4B-05C

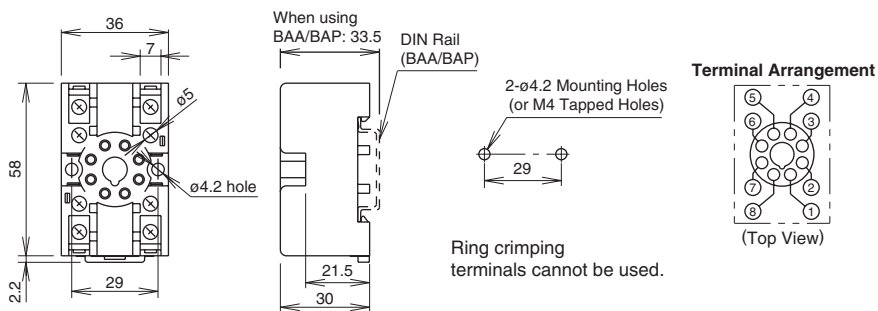
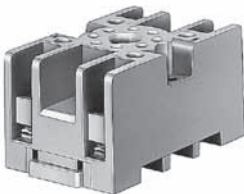


SR Series

SR2P-05A



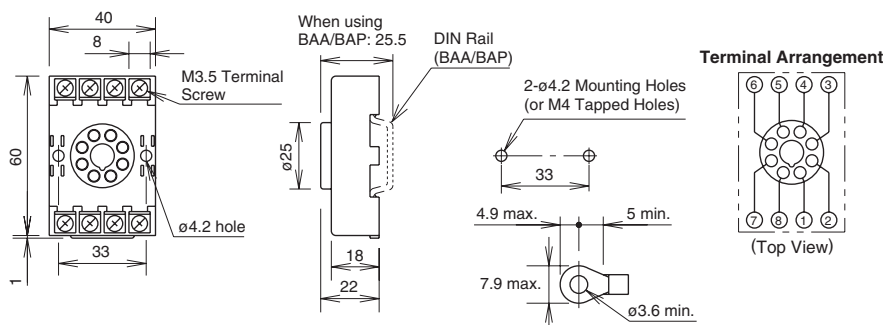
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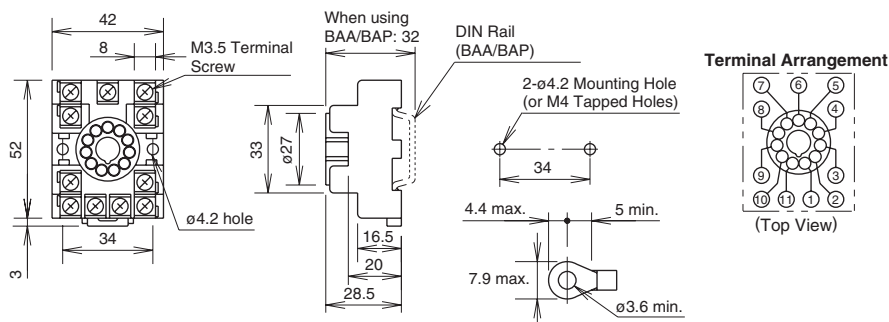
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Softwares
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Timers
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Circuit Protectors
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Barriers
LEDs
Safety Products
Information

Relay Sockets

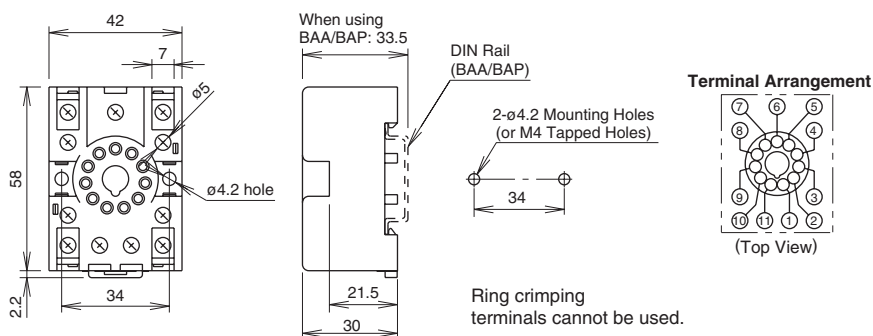
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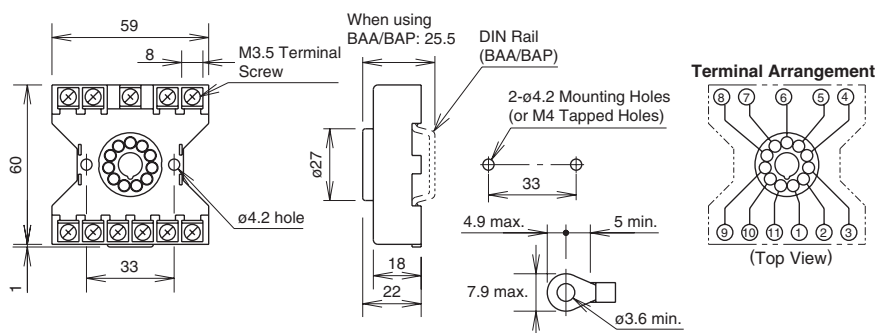
SR3P-05A



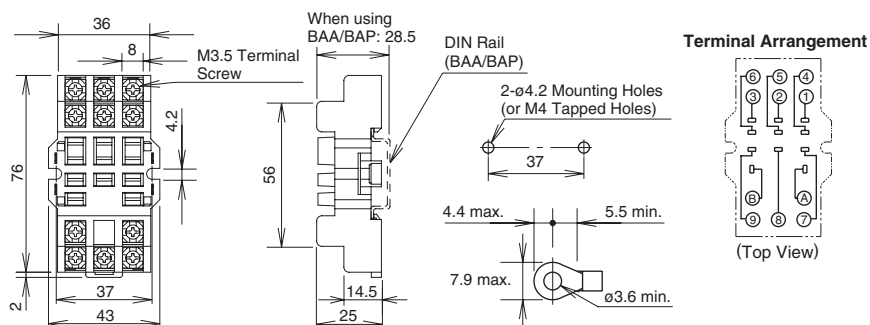
SR3P-05C



SR3P-06A



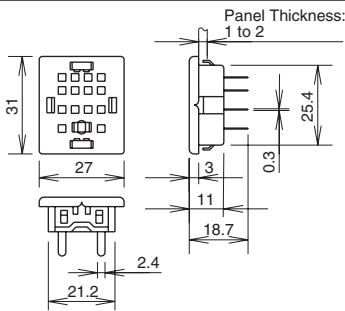
SR3B-05U



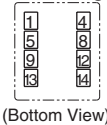
Panel Mount Sockets

SM Series

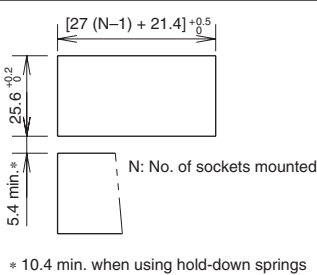
SM2S-51



Terminal Arrangement

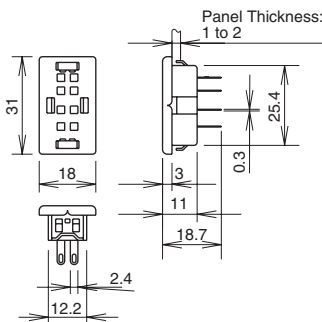


(Bottom View)

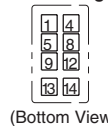


SY Series

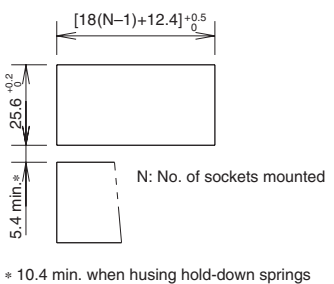
SY2S-51



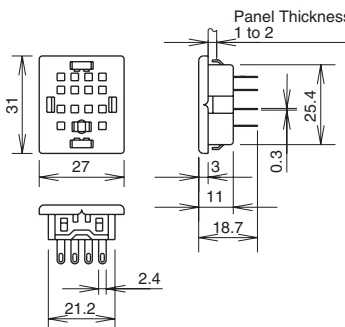
Terminal Arrangement



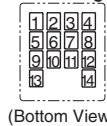
(Bottom View)



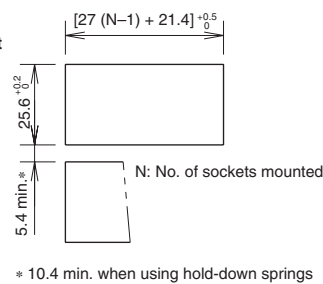
SY4S-51



Terminal Arrangement

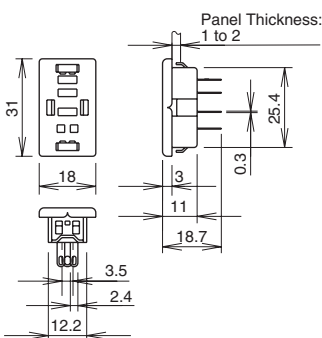


(Bottom View)

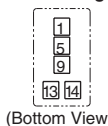


SH Series

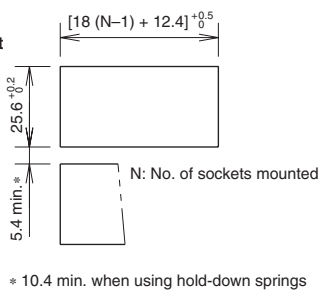
SH1B-51



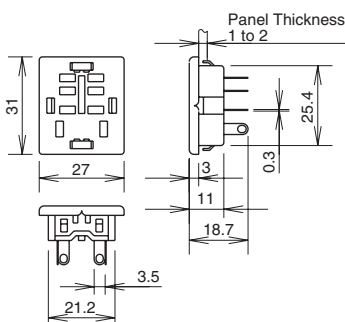
Terminal Arrangement



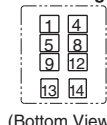
(Bottom View)



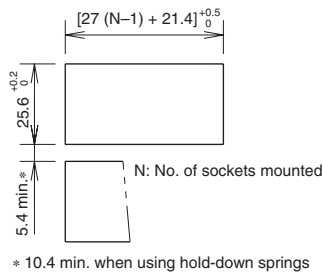
SH2B-51



Terminal Arrangement



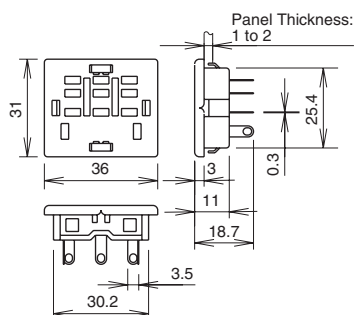
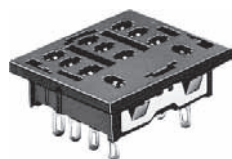
(Bottom View)



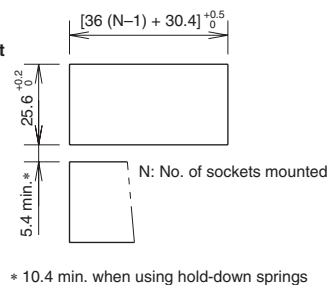
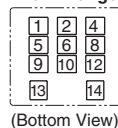
Switches & Pilot Lights
Flush Silhouette Switches
Emergency Stop Switches
Control Stations
Display Lights
Operator Interfaces
PLCs
Softwares
Relays
Sockets
Timers
Terminal Blocks
Circuit Protectors
Power Supplies
Sensors
Ex-proof Control Boxes
Barriers
LEDs
Safety Products
Information

Relay Sockets

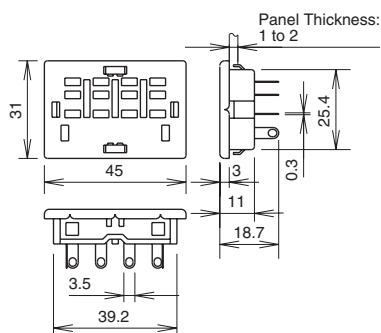
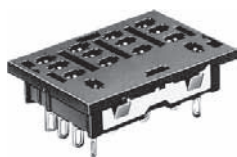
SH3B-51



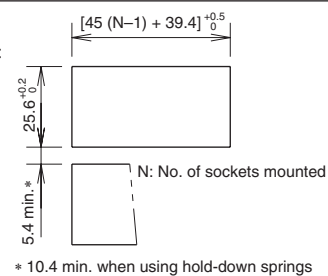
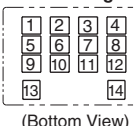
Terminal Arrangement



SH4B-51

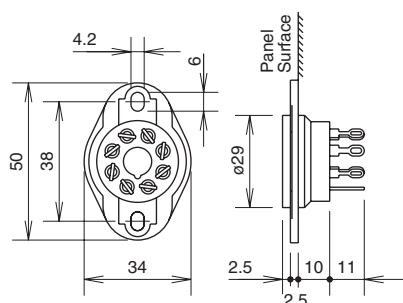


Terminal Arrangement

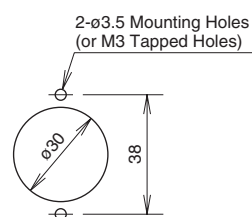
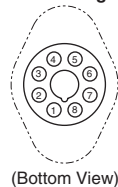


SR Series

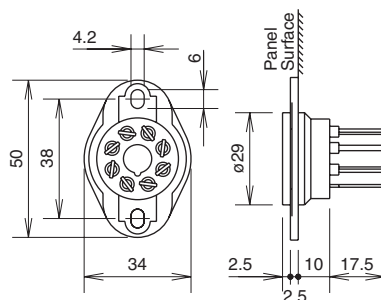
SR2P-511



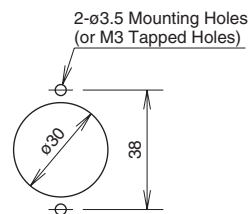
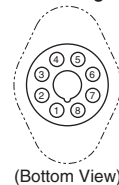
Terminal Arrangement



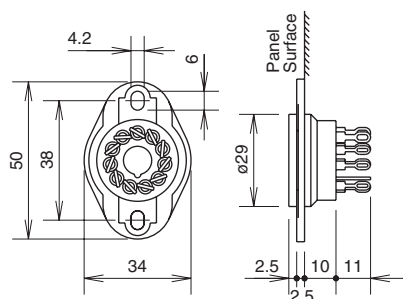
SR2P-70



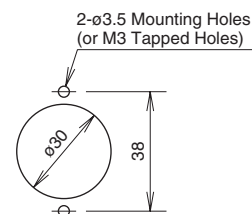
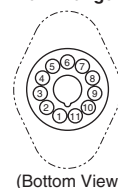
Terminal Arrangement



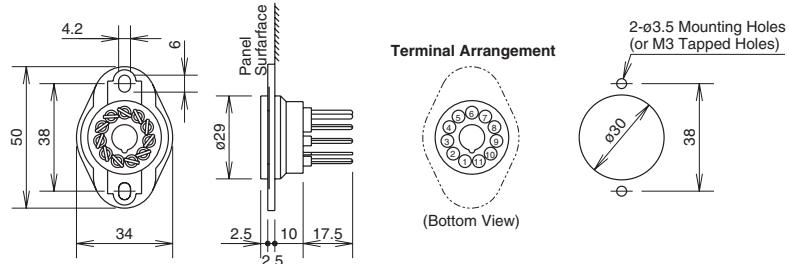
SR3P-511



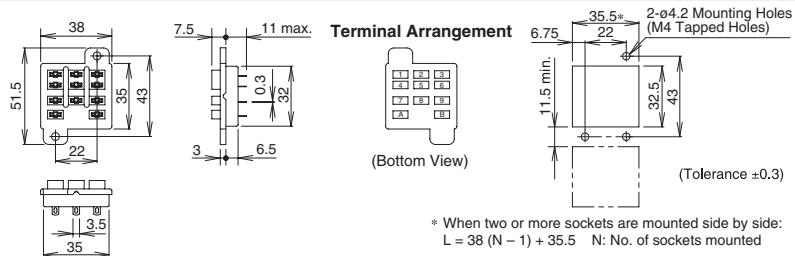
Terminal Arrangement



SR3P-70



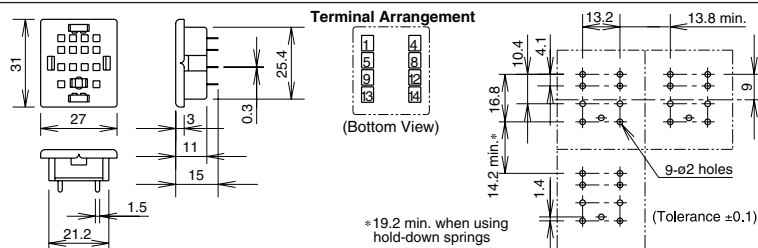
SR3B-51



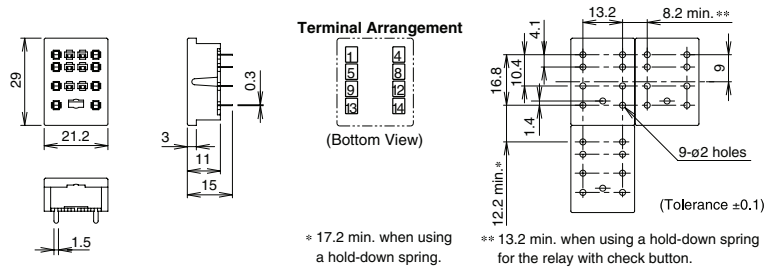
PC Board Mount Sockets

SM Series

SM2S-61

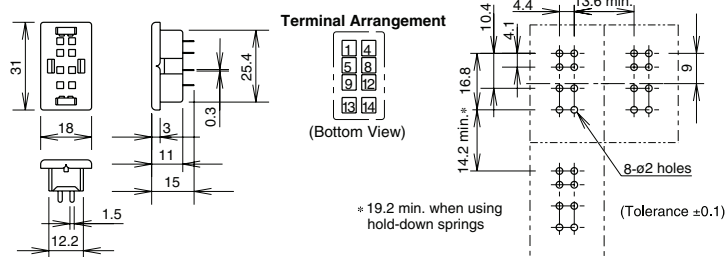


SM2S-62

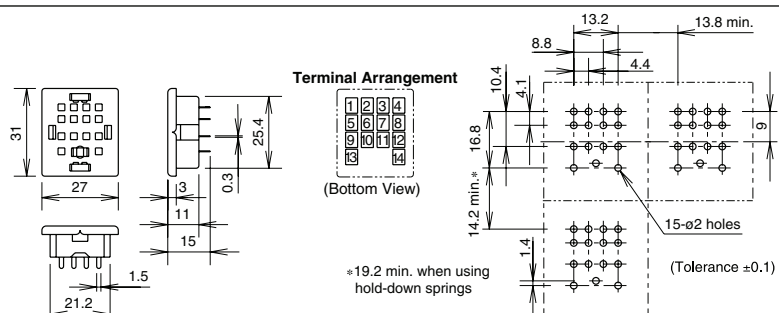


SY Series

SY2S-61



SY4S-61



Switches & Pilot Lights

Flush Silhouette Switches

Emergency Stop Switches

Control Stations

Display Lights

Operator Interfaces

PLCs

Softwares

Relays

Sockets

Timers

Terminal Blocks

Circuit Protectors

Power Supplies

Sensors

Ex-proof Control Boxes

Barriers

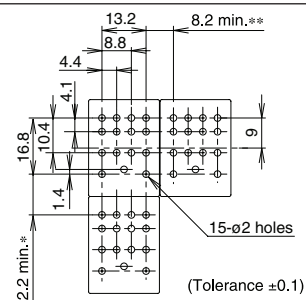
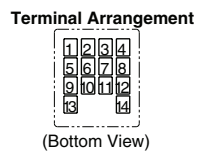
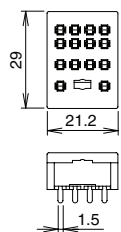
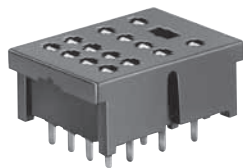
LEDs

Safety Products

Information

Relay Sockets

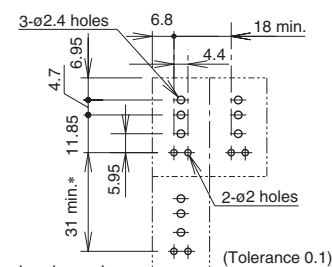
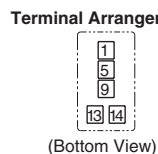
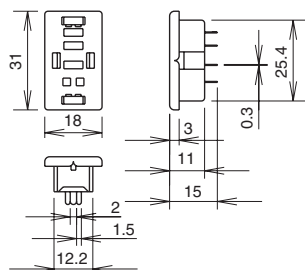
SY4S-62



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

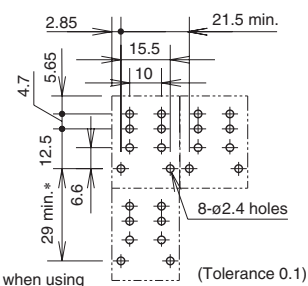
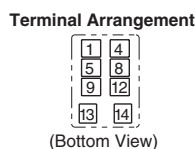
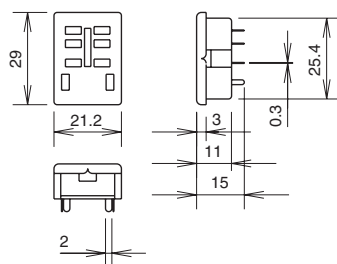
SH Series

SH1B-62



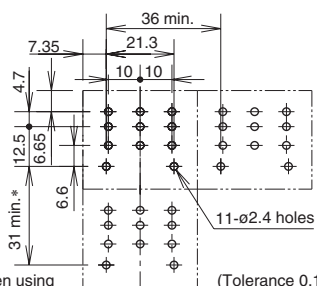
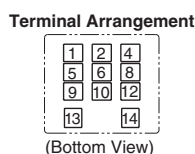
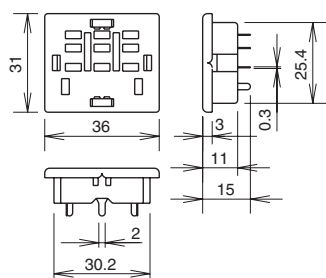
* 36 min. when using hold-down springs

SH2B-62



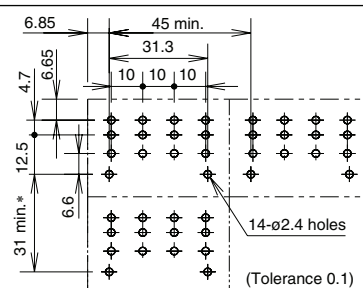
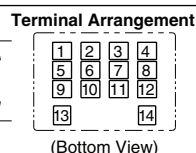
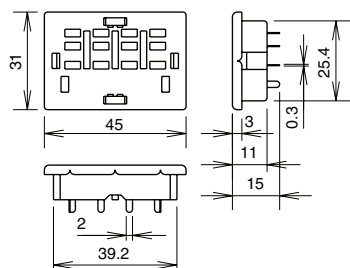
* 34 min. when using hold-down springs

SH3B-62



* 36 min. when using hold-down springs

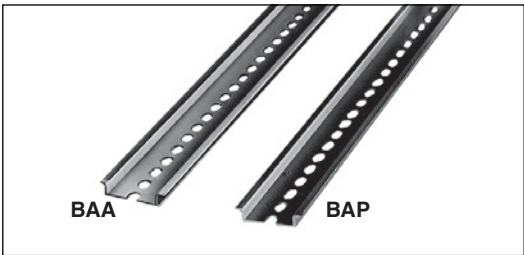
SH4B-62



* 36 min. when using hold-down springs

Accessories

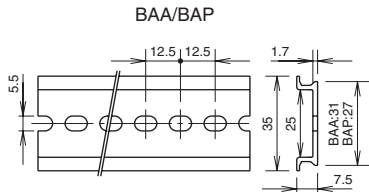
DIN Rails



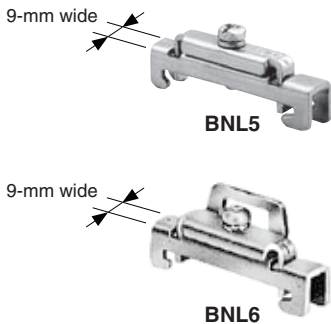
The BAA is a 35-mm-wide DIN rail made of durable extruded aluminum.

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

DIN Rail Spacer

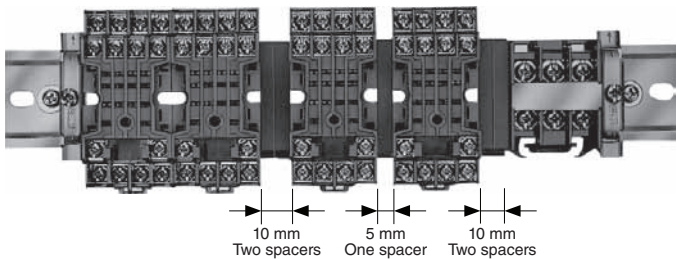


Spacers of 5-mm thick are designed to provide spacing between DIN rail mount sockets when mounted on 35-mm wide DIN rails. The spacers snap on and off the rail like sockets.

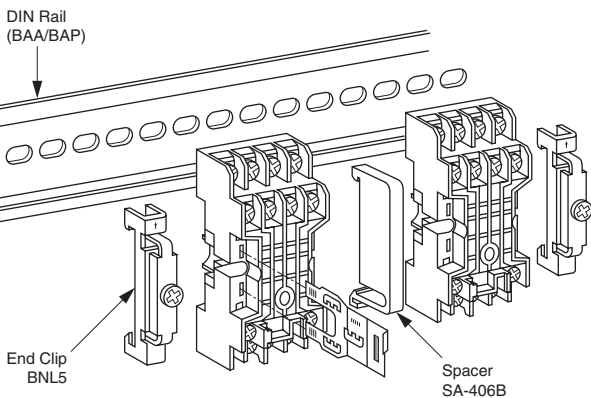
Part No.	Package Quantity	Color
SA-406B	1	Black

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



Switches & Pilot Lights

Flush Silhouette Switches

Emergency Stop Switches

Control Stations

Display Lights

Operator Interfaces

PLCs

Softwares

Relays

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Barriers

LEDs

Safety Products

Information

Relay Sockets

Surface Mounting of DIN Rail Mount Socket

End Spacer



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

Intermediate Spacer



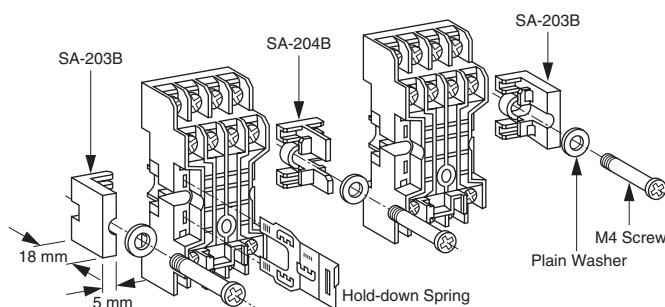
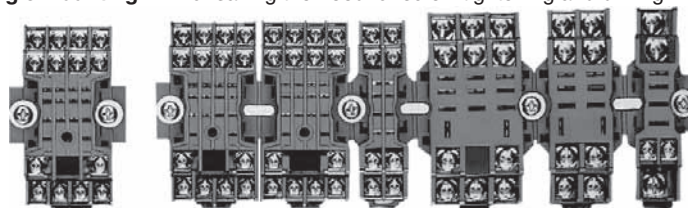
Part No.	Package Quantity	Color
SA-204B	1	Black

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.

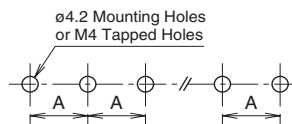
Note: DIN rail mount sockets can also mount directly on panel surfaces without using these spacers, then the mounting centers are different from when using spacers.

Single Mounting

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

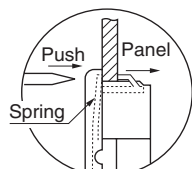


Collective Mounting of Panel Mount Sockets

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.

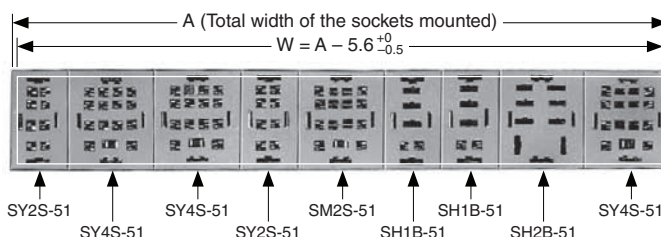
Mounting into Panel Cut-out

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.



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.



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

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