

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			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.

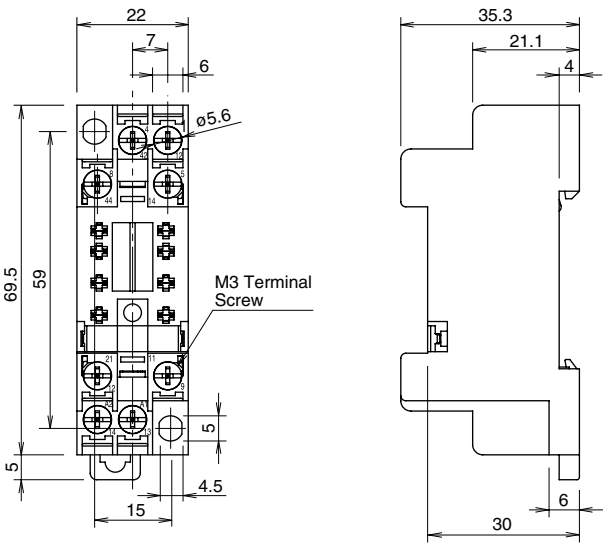
- Insert a color code in place of *. A (amber), G (green), S (blue), W (white), Y (yellow)

DF Series Finger-safe Sockets

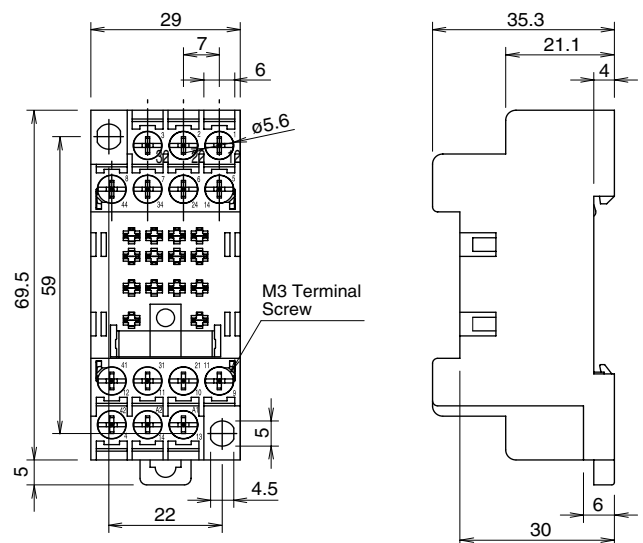
Dimensions

Sockets

SM2S-05DF

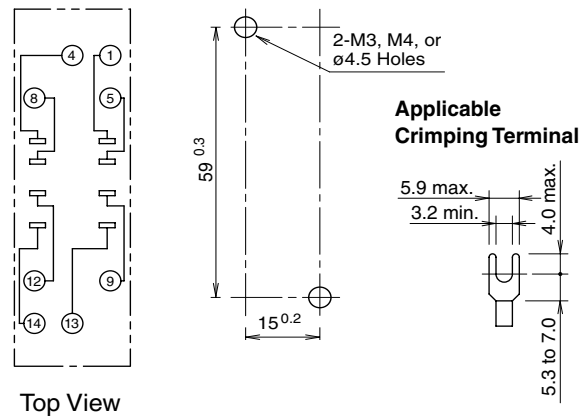


SY4S-05DF



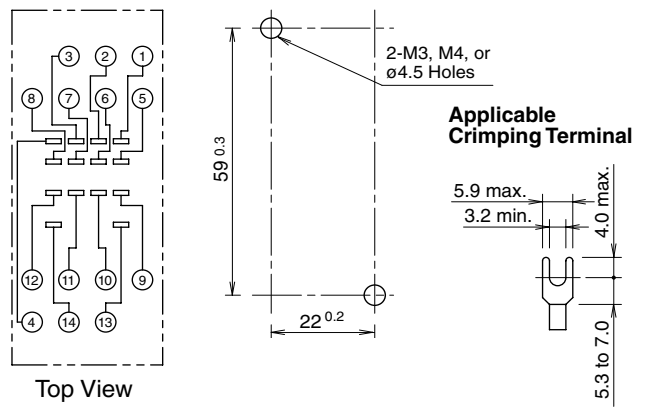
Terminal Arrangement

Mounting Hole Layout



Terminal Arrangement

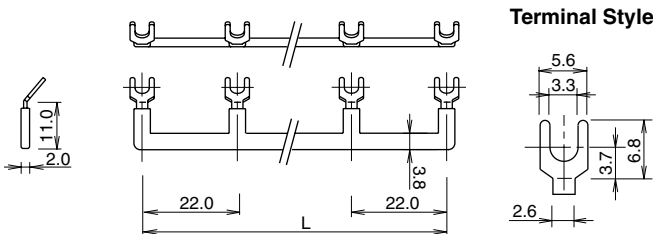
Mounting Hole Layout



All dimensions are in mm.

Insulated Fork Jumpers

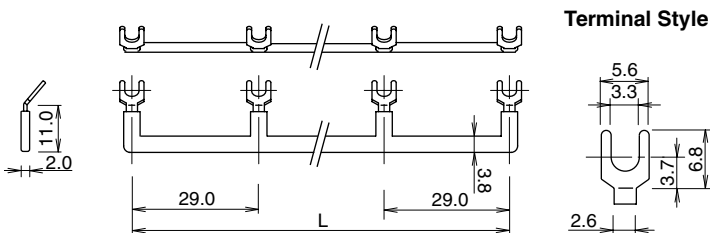
For SM2S-05DF



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

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

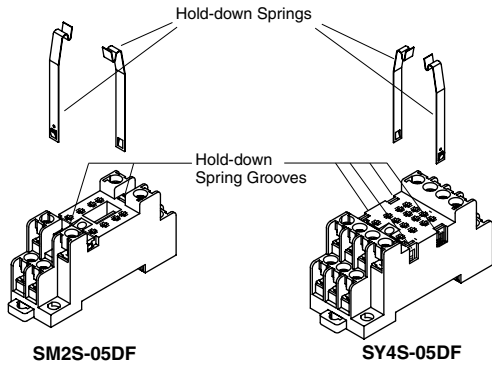
DF Series Finger-safe Sockets

Operating Instructions

Hold-down Springs

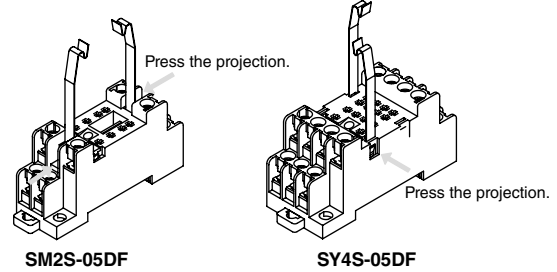
Installation

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



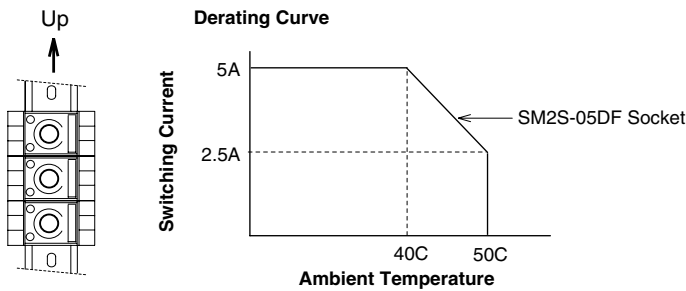
Removal

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.