

Relay Sockets

# DF Series

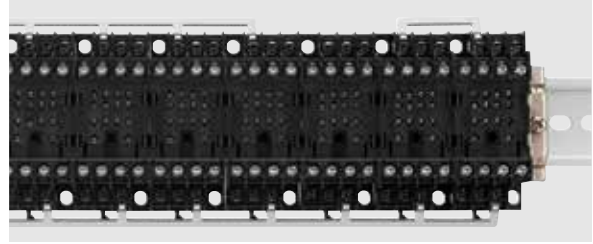


Easy-to-use relay sockets for various applications.



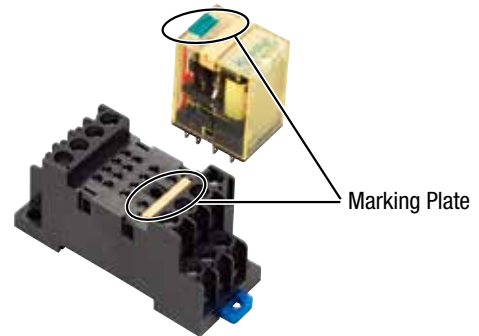
• See website for details on approvals and standards.

### Jumpers available for easy wiring

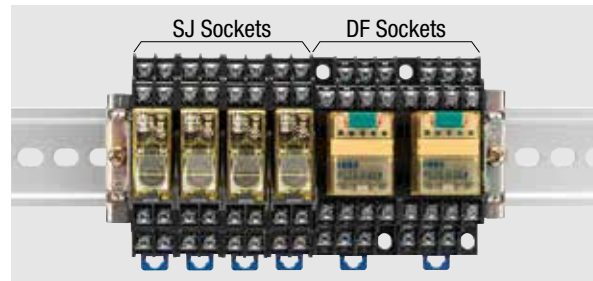


### Sockets use the same marking plates as the RU relays

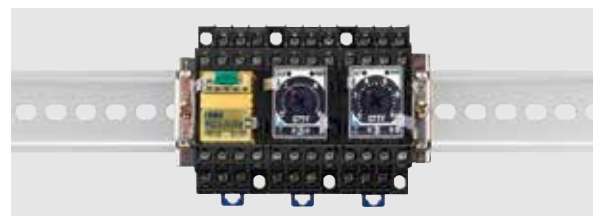
Accepts the same marking plates as the RU series relays, allowing for easy identification of circuits.



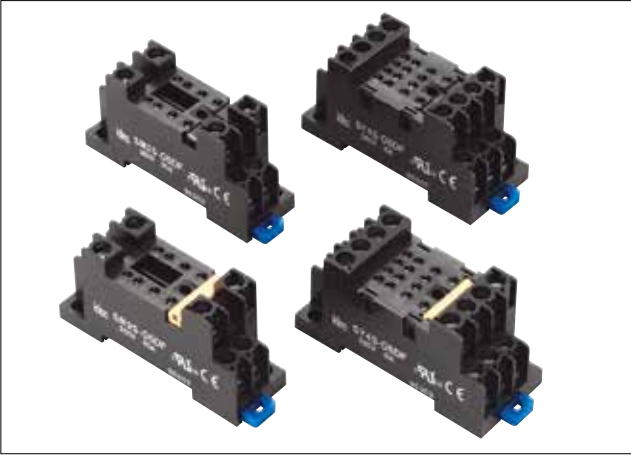
### Similar dimensions to SJ series sockets, allowing easy and efficient wiring.



### Mount compact GT5Y timers



# DF Series Relay Sockets



## 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 <sup>2</sup> (2 mm <sup>2</sup> 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	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	10	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	
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)

APEM

Switches &amp; Pilot Lights

Control Boxes

Emergency Stop Switches

Enabling Switches

Safety Products

Explosion Proof

Terminal Blocks

Relays &amp; Sockets

Circuit Protectors

Power Supplies

LED Illumination

Controllers

Operator Interfaces

Sensors

AUTO-ID

Relays

Sockets

DIN Rail Products

SJ

DF

SU

S

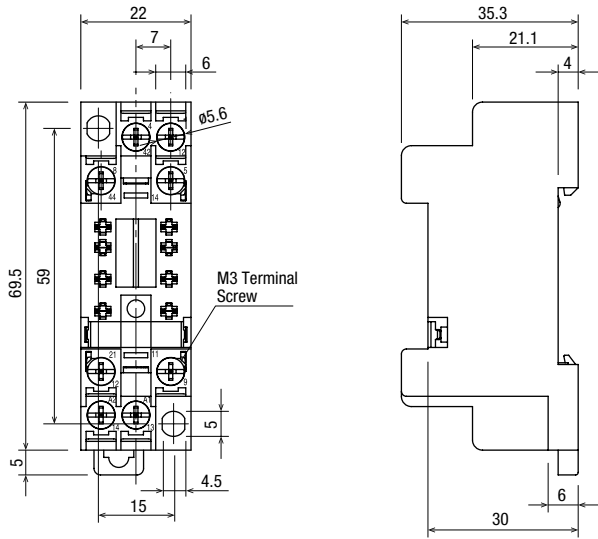
# DF Series Finger-safe Sockets

## Dimensions

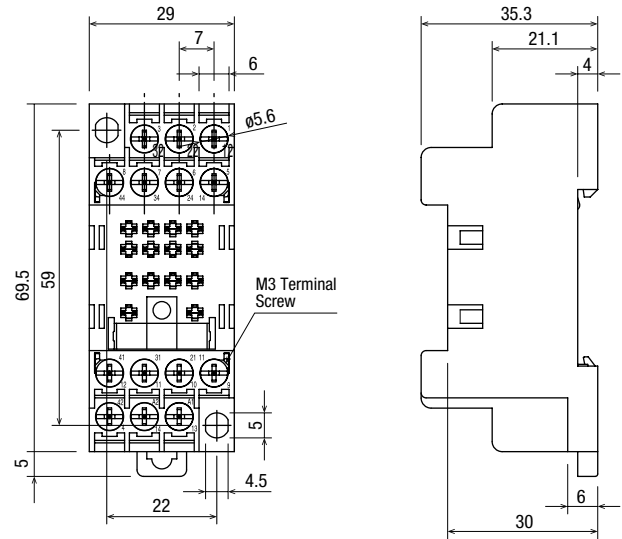
All dimensions are in mm.

### Sockets

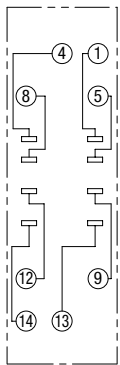
#### SM2S-05DF



#### SY4S-05DF

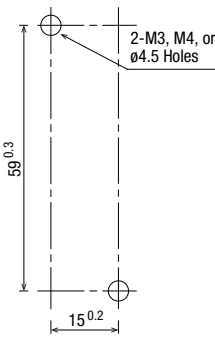


#### Terminal Arrangement

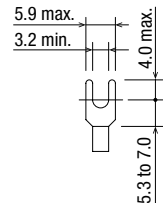


Top View

#### Mounting Hole Layout

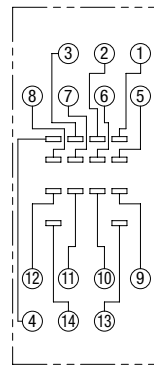


#### Applicable Crimping Terminal



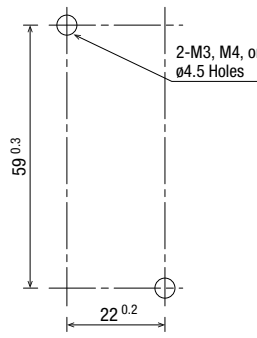
Ring crimping terminals cannot be used.

#### Terminal Arrangement

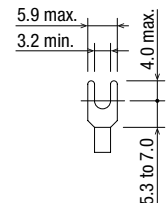


Top View

#### Mounting Hole Layout



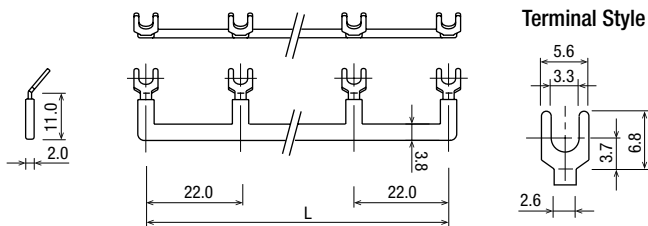
#### Applicable Crimping Terminal



Ring crimping terminals cannot be used.

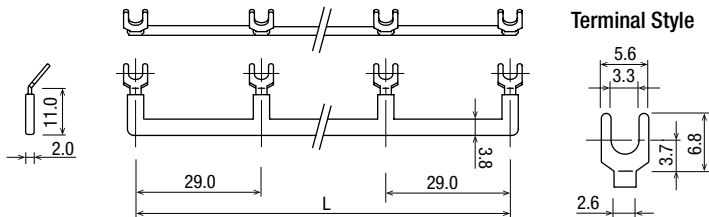
## Insulated Fork Jumpers

### For SM2S-05DF



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

### For SY4S-05DF



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

**⚠ Safety Precautions**

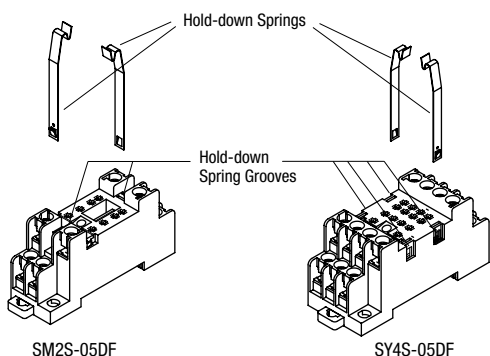
- Turn off power to the socket before starting installation, removal, wiring, maintenance, and inspection of the relays. Failure to turn power off may cause electrical shock or fire hazard.
- Do not touch the terminals while power is applied, otherwise electrical shock or fire hazard may result.
- Use 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.

**Instructions**

**Hold-down Springs**

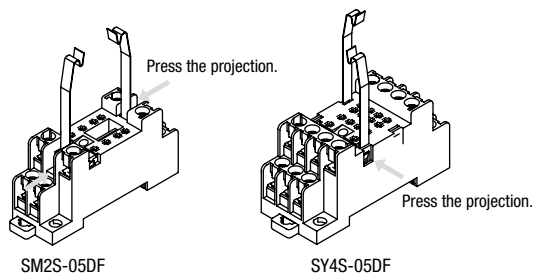
**Installation**

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



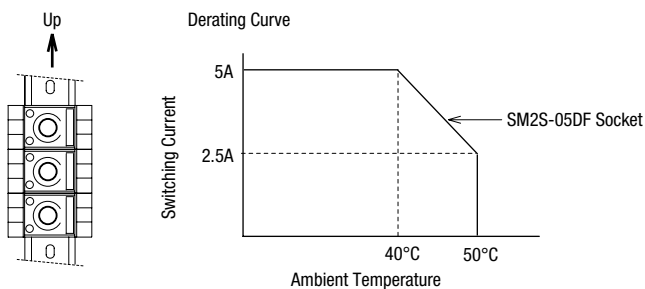
**Removal**

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.



- APEM
- Switches & Pilot Lights
- Control Boxes
- Emergency Stop Switches
- Enabling Switches
- Safety Products
- Explosion Proof
- Terminal Blocks
- Relays & Sockets
- Circuit Protectors
- Power Supplies
- LED Illumination
- Controllers
- Operator Interfaces
- Sensors
- AUTO-ID

Relays

Sockets

DIN Rail Products

SJ

DF

SU

S

# Ordering Terms and Conditions

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

## 1. Notes on contents of Catalogs

- (1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.  
Also, durability varies depending on the usage environment and usage conditions.
- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (4) The content of Catalogs is subject to change without notice.

## 2. Note on applications

- (1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards.  
Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
- (2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
- (3) When using IDEC products, be cautious when implementing the following.
  - i. Use of IDEC products with sufficient allowance for rating and performance
  - ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
  - iii. Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
- (5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
  - i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
  - ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
  - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference  
If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

## 3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

## 4. Warranty

- (1) Warranty period  
The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.
- (2) Warranty scope  
Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.
  - i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
  - ii. The failure was caused by reasons other than an IDEC product
  - iii. Modification or repair was performed by a party other than IDEC
  - iv. The failure was caused by a software program of a party other than IDEC
  - v. The product was used outside of its original purpose
  - vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs
  - vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from IDEC
  - viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

## 5. Limitation of liability

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

## 6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

- (1) Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)
- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

# IDEC CORPORATION

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