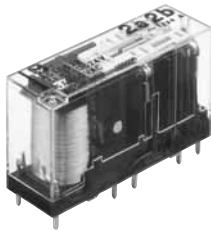




### Slim type safety relays

# SF RELAYS

## Slim type



RoHS compliant

Protective construction: Flux-resistant type

### FEATURES

- Acquisition of Korean safety certification ("S" mark)**  
Excluding with diode type
- Forcibly guided contact structure**
- Slim profile (mm inch)**  
40/50 (L) × 13 (W) × 24 (H)  
1.575/1.969 (L) × .512 (W) × .945 (H)
- Fast response time is achieved (8 ms or less).**
- With diode and LED indication type available**
- Sockets and terminal sockets (spade and ring tongue terminal compatible) are available.**

### TYPICAL APPLICATIONS

- Machine tools
- Robots
- Safety PLCs
- Circuits with stringent safety standard requirements such as those in motor vehicle production equipment.

### ORDERING INFORMATION



S: Slim type

- Contact arrangement
- 2: 2 Form A 2 Form B
  - 3: 3 Form A 1 Form B
  - 4: 4 Form A 2 Form B
  - 5: 5 Form A 1 Form B
  - 6: 3 Form A 3 Form B

- Operation indication
- Nil: Without LED indication
  - L: With LED indication

- Nominal coil voltage
- 12, 24, 48V DC

- Function
- Nil: None
  - D: With diode

Notes: 1. Please consult us about other coil voltages.  
2. LED indication color is green.

## TYPES

### 1. Standard type

Contact arrangement		Nominal coil voltage	Without LED indication	With LED indication
			Part No.	Part No.
4 poles	2 Form A 2 Form B	12 V DC	SFS2-DC12V	SFS2-L-DC12V
		24 V DC	SFS2-DC24V	SFS2-L-DC24V
		48 V DC	SFS2-DC48V	SFS2-L-DC48V
	3 Form A 1 Form B	12 V DC	SFS3-DC12V	SFS3-L-DC12V
		24 V DC	SFS3-DC24V	SFS3-L-DC24V
		48 V DC	SFS3-DC48V	SFS3-L-DC48V
6 poles	4 Form A 2 Form B	12 V DC	SFS4-DC12V	SFS4-L-DC12V
		24 V DC	SFS4-DC24V	SFS4-L-DC24V
		48 V DC	SFS4-DC48V	SFS4-L-DC48V
	5 Form A 1 Form B	12 V DC	SFS5-DC12V	SFS5-L-DC12V
		24 V DC	SFS5-DC24V	SFS5-L-DC24V
		48 V DC	SFS5-DC48V	SFS5-L-DC48V
	3 Form A 3 Form B	12 V DC	SFS6-DC12V	SFS6-L-DC12V
		24 V DC	SFS6-DC24V	SFS6-L-DC24V
		48 V DC	SFS6-DC48V	SFS6-L-DC48V

Standard packing: Carton: 50 pcs.; Case: 200 pcs.

\* Sockets and terminal sockets available.

### 2. With diode and LED indication type

Contact arrangement		Nominal coil voltage	Part No.
4 poles	2 Form A 2 Form B	12 V DC	SFS2-L-DC12V-D
		24 V DC	SFS2-L-DC24V-D
		48 V DC	SFS2-L-DC48V-D
	3 Form A 1 Form B	12 V DC	SFS3-L-DC12V-D
		24 V DC	SFS3-L-DC24V-D
		48 V DC	SFS3-L-DC48V-D
6 poles	4 Form A 2 Form B	12 V DC	SFS4-L-DC12V-D
		24 V DC	SFS4-L-DC24V-D
		48 V DC	SFS4-L-DC48V-D
	5 Form A 1 Form B	12 V DC	SFS5-L-DC12V-D
		24 V DC	SFS5-L-DC24V-D
		48 V DC	SFS5-L-DC48V-D
	3 Form A 3 Form B	12 V DC	SFS6-L-DC12V-D
		24 V DC	SFS6-L-DC24V-D
		48 V DC	SFS6-L-DC48V-D

Standard packing: Carton: 50 pcs.; Case: 200 pcs.

\* Sockets and terminal sockets available.

## RATING

### 1. Coil data

Contact arrangement		Nominal coil voltage	Pick-up voltage (at 20°C 68°F)	Drop-out voltage (at 20°C 68°F)	Nominal operating current [±10%] (at 20°C 68°F)	Coil resistance [±10%] (at 20°C 68°F)	Nominal operating power (at 20°C 68°F)	Max. applied voltage (at 20°C 68°F)			
4 poles	2 Form A 2 Form B	12V DC	75%V or less of nominal voltage (Initial)	10%V or more of nominal voltage (Initial)	30 mA	400Ω	Approx. 360mW	110%V of nominal voltage			
		24V DC			15 mA	1,600Ω					
		48V DC			7.5mA	6,400Ω					
	3 Form A 1 Form B	12V DC			30 mA	400Ω					
		24V DC			15 mA	1,600Ω					
		48V DC			7.5mA	6,400Ω					
6 poles	4 Form A 2 Form B	12V DC			75%V or less of nominal voltage (Initial)	10%V or more of nominal voltage (Initial)	41.7mA		288Ω	Approx. 500mW	110%V of nominal voltage
		24V DC					20.8mA		1,152Ω		
		48V DC					10.4mA		4,608Ω		
	5 Form A 1 Form B	12V DC					41.7mA		288Ω		
		24V DC					20.8mA		1,152Ω		
		48V DC					10.4mA		4,608Ω		
	3 Form A 3 Form B	12V DC	41.7mA	288Ω							
		24V DC	20.8mA	1,152Ω							
		48V DC	10.4mA	4,608Ω							

Note: The nominal operating current will increase by approximately 2mA due to the LED on the LED indication type.