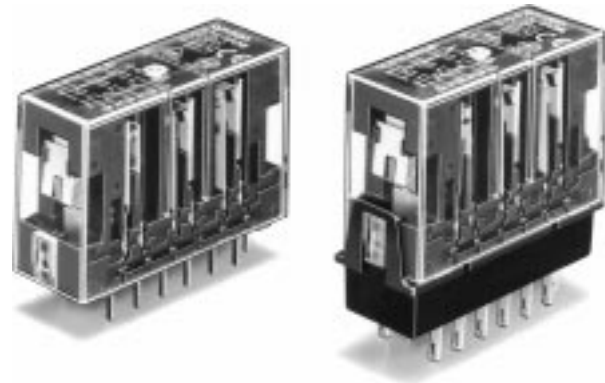


### Safety Relay for Machine Control Conforms to EN Standard

- Suitable for safety circuits in press machinery, machine tools, and other production machinery
- CE mark (conforms to prEN50205)
- Positive, force-guided contacts
- A minimum of 0.5 mm between contacts even when one contact is welded (prEN50205 Class A)
- DIN rail-mounting and panel-mounting sockets are available



Note: Be sure to refer to the *Precautions* section.



## Ordering Information

### ■ SAFETY RELAYS

Number of contacts	NO contacts	NC contacts	Contact form	Rated voltage (V)	Part number
6 poles	4	2	4PST-NO + DPST-NC	24 VDC	G7S-4A2B DC24
	3	3	3PST-NO + 3PST-NC		G7S-3A3B DC24

### ■ ACCESSORIES

Description		Part number
Mounting sockets	DIN-rail mounting and screw mounting	P7S-14F
	Solder terminals	P7S-14A
	PCB terminals	P7S-14P
Socket mounting plate	For solder terminal sockets, holds 10 sockets	P7S-A10
Relay removal tool	Removes relay from sockets	P7S-B
DIN rail mounting track	50 cm (1.64 ft) length	PFP-50N
	1 m (3.28 ft) length	PFP-100N
	Spacer	PFP-S
	End plate	PFP-M

# Specifications

## ■ RATINGS

### Operation Coil

Rated voltage	Rated current	Coil resistance	Minimum operate voltage	Release voltage	Max. voltage	Power consumption
24 VDC	30 mA	800 $\Omega$	80% max. (V)	10% (V)	110% (V)	Approx. 0.8 W

- Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with tolerances of  $\pm 15\%$ .  
 2. Performance characteristics are based on a coil temperature of 23°C  
 3. The maximum voltage is based on an ambient operating temperature of 23°C maximum.

### Switching Section (Contact Ratings)

Load type	Resistive load ( $\cos \phi = 1$ )	Inductive load ( $\cos \phi = 0.4, L/R = 7 \text{ ms}$ )
Rated load	240 VAC: 3 A, 24 VDC: 3 A	240 VAC: 3 A, 24 VDC: 1 A
Maximum switching voltage	250 VAC, 24 VDC	
Maximum switching current	6 A	
Maximum switching capacity (reference value)	1,440 VA, 144 W	
Min. permissible load (See note.)	5 VDC, 10 mA	
Contact material	Ag + Au	

Note: The above values are based on an operating frequency of 60 operations/min.

## ■ CHARACTERISTICS

Contact resistance (See Note 2.)	100 m $\Omega$ max.	
Operate time (See Note 3.)	50 ms max.	
Release time (See Note 3.)	50 ms max.	
Maximum operating frequency	Mechanical	18,000 operations/hr
	Rated load	1,800 operations/hr
Insulation resistance	100 M $\Omega$ min. (at 500 VDC)	
Dielectric strength	2,500 VAC, 50/60 Hz for 1 min (1,500 VAC between contacts of same polarity)	
Vibration	Mechanical	10 to 55 Hz, 1.5-mm double amplitude
	Electrical	10 to 55 Hz, 0.75-mm double amplitude
Shock	Mechanical	1,000 m/s <sup>2</sup> (approx. 100G)
	Electrical	100 m/s <sup>2</sup> (approx. 10G)
Life expectancy	Mechanical	10,000,000 operations min. (at approx. 18,000 operations/hr)
	Electrical	100,000 operations min. (at the rated load and approx. 1,800 operations/hr)
Ambient temperature	Operating	-10°C to 70°C (14°F to 158°F) no icing
	Storage	-25°C to 70°C (-13°F to 158°F) no icing
Relative humidity	35% to 85% RH	
Ambient storage humidity	35% to 85% RH	
Weight	Approx. 65 g	

- Note: 1. The values given above are initial values.  
 2. Measurement conditions: 5 VDC, 10 mA, voltage drops.  
 3. Measurement conditions:  
     Rated voltage operation  
     Ambient operating temperature: 23°C (73.4°F)  
     Does not include bounce time.