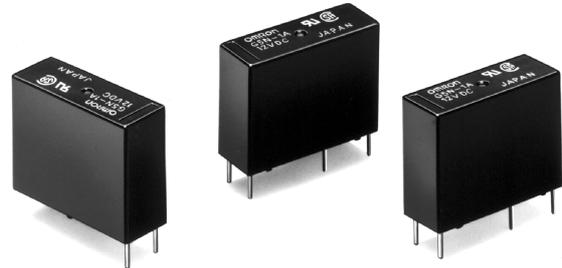


A Miniature Relay with 1-pole 3-A Switching Capability and 10-kV Impulse Withstand Voltage

- 43% reduced bottom area over previous OMRON product. (G5B)
- Highly efficient magnetic circuit for high sensitivity (200 mW).
- Small, yet provides 10-kV impulse withstand voltage (between coil and contacts).



RC

Ordering Information

Classification	Contact form	Enclosure ratings	Model
Standard	SPST-NO	Flux protection	G5N-1A

Note: When ordering, add the rated coil voltage to the model number.

Example: G5N-1A 12 VDC

Rated coil voltage

Model Number Legend

G5N-j j j VDC
 1 2 3

1. Number of Poles

1: 1 pole

2. Contact Form

A: SPST-NO

3. Rated Coil Voltage

5, 12, 18, 24 VDC

Specifications

■ Coil Ratings

Rated voltage	5 VDC	12 VDC	18 VDC	24 VDC
Rated current	40.0 mA	16.7 mA	11.1 mA	8.3 mA
Coil resistance	125 Ω	720 Ω	1,620 Ω	2,880 Ω
Must operate voltage	75% max. of rated voltage			
Must release voltage	10% min. of rated voltage			
Max. voltage	110% of rated voltage			
Power consumption	Approx. 200 mW			

■ Contact Ratings

Load	Resistive load ($\cos\phi = 1$)
Rated load	3 A at 125 VAC, 3 A at 30 VDC
Max. switching voltage	250 VAC, 30 VDC
Max. switching current	3 A
Max. switching power	375 VA, 90 W
Min. permissible load	10 mA at 5 VDC

Note: P level: $\lambda_{60} = 0.1 \times 10^{-6}$ operations

■ Characteristics

Contact resistance	100 mΩ max.
Operate time	10 ms max.
Release time	10 ms max.
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	4,000 VAC, 50/60 Hz for 1 min between coil and contacts 750 VAC, 50/60 Hz for 1 min between contacts of same polarity
Impulse withstand voltage	10,000 V (1.2 x 50 μs) between coil and contacts
Vibration resistance	Destruction: 10 to 55 Hz, 1.5-mm double amplitude Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Destruction: 1,000 m/s ² Malfunction: 100 m/s ²
Life expectancy	Mechanical: 5,000,000 operations min. Electrical: 200,000 operations min.
Ambient temperature	Operating: -40°C to 70°C (with no icing) Storage: -40°C to 70°C (with no icing)
Ambient humidity	Operating: 35% to 85%

Note: The data shown above are initial value.

■ Approved Standards

UL508 (File No. 41515)

Coil ratings	Contact ratings
5 to 24 VDC	3 A, 30 VDC (resistive) 3 A, 125 VAC (resistive) 1.5 A, 220 VAC (resistive) 1 A, 250 VAC (resistive)

CSA C22.2 (No. 0, No. 1, No. 14) (File No. LR31928)

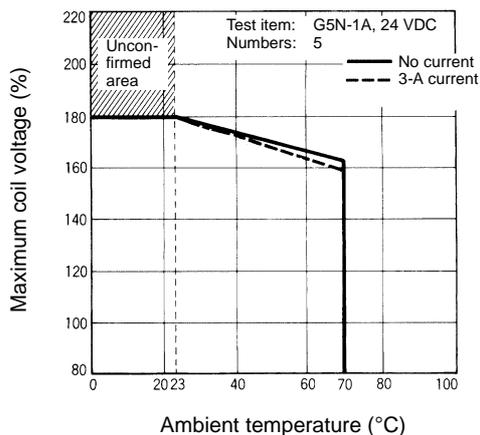
Coil ratings	Contact ratings
5 to 24 VDC	3 A, 30 VDC (resistive) 3 A, 125 VAC (resistive) 1.5 A, 220 VAC (resistive) 1 A, 250 VAC (resistive)

■ Actual Load Life (Reference Values)

- 100-VAC motor and lamp load (2.5-A surge and 0.5-A normal): 210,000 operations min.(at 23_C)
- 240-VAC motor and lamp load (0.8-A surge and 0.33-A normal): 210,000 operations min.(at 23_C)

Engineering Data

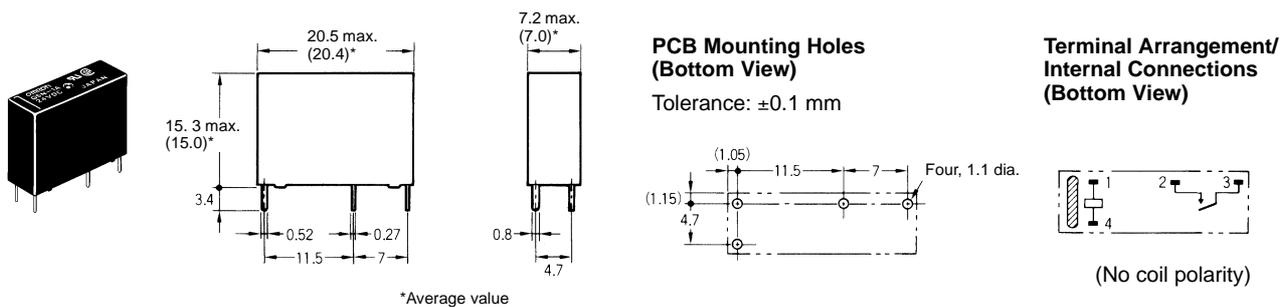
Ambient Temperature vs. Maximum Coil Voltage



Note: The maximum coil voltage refers to the maximum value in a varying range of operating power voltage, not a continuous voltage.

Dimensions

Note: All units are in millimeters unless otherwise indicated.



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.