OMRON PCB Relay

G5G

Ideal for Microwave Oven Magnetrons and Heater Switching

- Conforms to IEC 255 (TÜV approval), UL508, CSA22.2.
- Slim relay with high switching power: 16 A.
- Dual #187 tab/PCB terminals.
- High impulse withstand voltage: 10 kV.



RCE

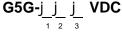
Ordering Information

| Enclosure ratings | Contact form | Standard Relays |
|-------------------|--------------|-----------------|
| Flux protection | SPST-NO | G5G-1A |

Note: When ordering, add the rated coil voltage to the model number. Example: G5G-1A <u>12 VDC</u>

Rated coil voltage

Model Number Legend



- 1. Number of Poles 1: 1 pole
- 2. Contact Form A: SPST-NO

Specifications

Coil Ratings

| Rated voltage | 12 VDC | 18 VDC | 24 VDC | |
|----------------------|------------------------|-----------------------|---------|--|
| Rated current | 41.7 mA | 27.8 mA | 20.8 mA | |
| Coil resistance | 288 Ω | 648 Ω | 1,152 Ω | |
| Must operate voltage | 70% max. of rated vol | tage | · | |
| Must release voltage | 5% min. of rated volta | ge | | |
| Max. voltage | 110% of rated voltage | 110% of rated voltage | | |
| Power consumption | Approx. 500 mW | | | |

Contact Ratings

| Rated load | 16 A at 250 VAC |
|----------------------|-----------------|
| Rated carry current | 16 A |
| Max. switching power | 4,000 VA |

3. Rated Coil Voltage 12, 18, 24 VDC

Characteristics

| Contact resistance | 100 mΩ max. | |
|---------------------------|--|--|
| Operate time | 20 ms max. | |
| Release time | 5 ms max. | |
| Insulation resistance | 1,000 MΩ min. (at 500 VDC) | |
| Dielectric strength | 5,000 VAC between coil and contacts (1 min.) 1,000 VAC between contacts of same polarity (1 min.) | |
| Impulse withstand voltage | 10,000 V (1.2 \times 50 $\mu s)$ 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: 150 m/s ² | |
| Life expectancy | Mechanical: 2,000,000 operations min. (18,000 operations/hr) Electrical: 100,000 operations min. (18,000 operations/hr) | |
| Ambient temperature | Operating: -40°C to 70°C (with no icing) Storage: -40°C to 70°C (with no icing) | |
| Ambient humidity | 35% to 85% | |
| Weight | Approx. 16 g | |

■ Approved Standards

UL508 (File No. E41515)

| Model | Coil ratings | Contact ratings | Number of test operations |
|--------|----------------------------|-----------------|---------------------------|
| G5G-1A | 12 VDC 18 VDC 24 VDC | 16 A, 250 VAC | 6,000 |

CSA C22.2 (No. 14) (File No. LR31928)

| Model | Coil ratings | Contact ratings | Number of test operations |
|--------|----------------------------|-----------------|---------------------------|
| G5G-1A | 12 VDC 18 VDC 24 VDC | 16 A, 250 VAC | 6,000 |

TÜV (IEC 255, File No. R9650783)

| Model | Coil ratings | Contact ratings | Number of test operations |
|--------|----------------------------|-----------------|---------------------------|
| G5G-1A | 12 VDC 18 VDC 24 VDC | 16 A, 250 VAC | 100,000 |

Reference Data ————

Heater Load

| Load | Condition | Operations |
|----------------------------|---------------------------|------------|
| 250 VAC, 16 A (Rated Load) | 1 s ON/OFF, at room temp. | 100,000 |
| 220 VAC, 1.7 kW | 3 s ON/OFF, at 80°C | 380,000 |
| 120 VAC, 1.42 kW | 3 s ON/OFF, at 80°C | 500,000 |
| 121 VAC, 10.4 A | 1.5 s ON/OFF, at 80°C | 580,000 |
| 100 VAC, 12 A | 1.5 s ON/OFF, at 80°C | 200,000 |
| 100 VAC, 1.3 kW | 3 s ON/OFF, at 80°C | 290,000 |

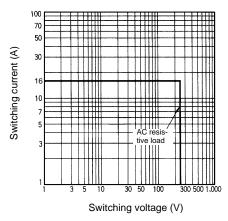
Simulative Load

| Load | Condition | Operations |
|--|---|------------|
| 125 VAC, Inrush current 16.5 A Steady current 5.5 A | 2 s ON (Inrush: 0.5 s /Steady: 1.5 s) 3 s OFF, at 45°C | 250,000 |

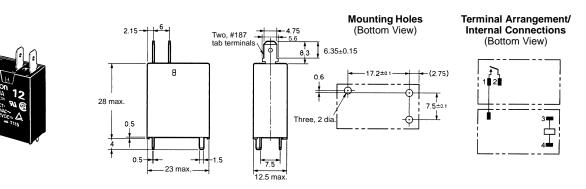
G5G

Engineering Data

Maximum Switching Power



Dimensions -



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

Cat. No. K110-E1-1