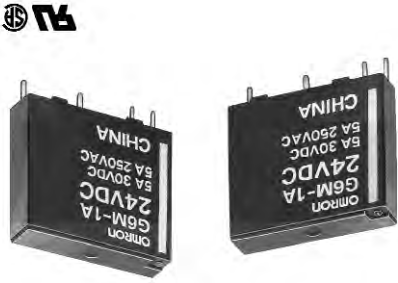


**PCB Power Relay – G6M**

- Slim, Miniature Relay, Capable of Relaying Programmable Controller and Temperature Controller Outputs**
- ROHS compliant.
  - Slim 5-mm width, and miniature size.
  - Reduced mounting area ideal for high-density mounting.
  - Highly efficient magnetic circuit for high sensitivity (40% higher than the G6D, with power consumption of 120 mW).
  - Satisfies EN61131-2 and EN61010 requirements.
  - SIL (single-in-line) terminal pitch.
  - UL, CSA and EN approved.



**Ordering Information**

Classification	Contact form	Enclosure ratings	Model
Standard	SPST-NO	Fully sealed	G6M-1A

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

Example: G6M-1A 12 VDC  
 Rated coil voltage

**Model Number Legend**

G6M - □ □ □ □ VDC

1 2 3

1. Number of Poles

1: 1 pole

2. Contact Form

A: SPST-NO

3. Rated Coil Voltage

5, 12, 24 VDC

**Specifications**

**■ Coil Ratings**

Rated voltage	Rated current	Coil resistance	Must operate voltage	Must release voltage	Max. voltage	Power consumption
5 VDC	24 mA	208 Ω	70% max. of rated voltage	10% min. of rated voltage	160% of rated voltage (at 23°C)	Approx. 120 mW
12 VDC	10 mA	1,200 Ω				
24 VDC	5 mA	4,800 Ω				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

2. Operating characteristics are measured at a coil temperature of 23°C.

3. The maximum allowable voltage is the maximum possible value of the voltage that can be applied to the relay coil. It is not the maximum voltage that can be applied continuously.

4. The must operate voltage is 72% or less of the rated voltage if the relay is mounted vertically and the terminals are pointed downwards.

**PCB Power Relay – G6M**

**■ Contact Ratings**

Rated load	Contact material	Rated carry current	Max. switching voltage	Max. switching current	Max. switching power	Min. permissible load
3 A at 250 VAC, 3 A at 30 VDC	AgNi	5 A	270 VAC, 125 VDC	5 A	750 VAC, 90 W	10 mA at 5 VDC (at 120 operations/min)

**■ Characteristics**

Contact resistance	Operate time	Release time	Insulation resistance	Dielectric strength	Impulse withstand voltage	Distance	Tracking Resistance (CTI)	Vibration resistance	Shock resistance	Endurance	Ambient temperature	Ambient humidity	Weight Approx.
100 mΩ max.	10 ms max.	5 ms max.	1,000 MΩ min. (at 500 VDC)	3,000 VAC, 50/60 Hz for 1 min between coil and contacts 750 VAC, 50/60 Hz for 1 min between contacts of same polarity	5,080 V (1.2 x 50 μs) between coil and contacts	Insulation Creepage (Typ) 3.5 mm Distance Clearance (Typ) 3.5 mm	250 V	Destruction: 10 to 55 Hz, 2.5-mm single amplitude (5.0-mm double amplitude) Malfunction: 10 to 55 Hz, 0.75-mm single amplitude (1.5-mm double amplitude)	Destruction: 1,000 m/s <sup>2</sup> Malfunction: 100 m/s <sup>2</sup>	Mechanical: 20,000,000 operations min. (at 18,000 operations/h) Electrical: 100,000 operations min. (3 A at 250 VAC/30 VDC, resistive load at 1,800 operations/h)	Operating: -40°C to 85°C (with no icing) Operating: 5% to 85%		4 g

**■ Approved Standards**

UL508 (File No. E41515)/CSA C22.2 (No.14) (File No. LR31928)

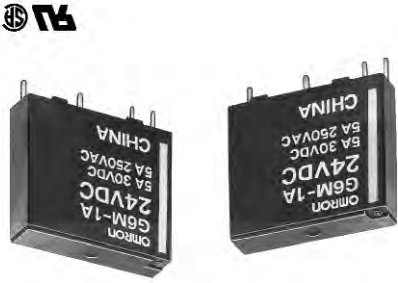
**EN 61810-1 (VDE Reg. no 400003429)**

Model	Coil ratings	Contact ratings
G6M-1A	4.5 to 24 VDC	5 A, 250 VAC (resistive load, 6,000 operations) 5 A, 30 VDC (resistive load, 100,000 operations) 3 A, 250 VAC (general use, 100,000 operations) 3 A, 30 VDC (general use, 100,000 operations)

Model	Coil ratings	Contact ratings
G6M-1A	4.5, 5, 12 & 24VDC	3A, 250VAC (cos φ 1,50,000) 3A, 30VDC (0ms, 50,000)

**PCB Power Relay – G6M**

- Slim, Miniature Relay, Capable of Relaying Programmable Controller and Temperature Controller Outputs**
- ROHS compliant.
  - Slim 5-mm width, and miniature size.
  - Reduced mounting area ideal for high-density mounting.
  - Highly efficient magnetic circuit for high sensitivity (40% higher than the G6D, with power consumption of 120 mW).
  - Satisfies EN6131-2 and EN61010 requirements.
  - SIL (single-in-line) terminal pitch.
  - UL, CSA and EN approved.



**Ordering Information**

Classification	Contact form	Enclosure ratings	Model
Standard	SPST-NO	Fully sealed	G6M-1A

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

Example: G6M-1A 12 VDC  
 Rated coil voltage

**Model Number Legend**

G6M - □ □ □ □ VDC

1 2 3

1. Number of Poles

1: 1 pole

2. Contact Form

A: SPST-NO

3. Rated Coil Voltage

5, 12, 24 VDC

**Specifications**

**■ Coil Ratings**

Rated voltage	Rated current	Coil resistance	Must operate voltage	Must release voltage	Max. voltage	Power consumption
5 VDC	24 mA	208 Ω	70% max. of rated voltage	10% min. of rated voltage	160% of rated voltage (at 23°C)	Approx. 120 mW
12 VDC	10 mA	1,200 Ω				
24 VDC	5 mA	4,800 Ω				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.

2. Operating characteristics are measured at a coil temperature of 23°C.

3. The maximum allowable voltage is the maximum possible value of the voltage that can be applied to the relay coil. It is not the maximum voltage that can be applied continuously.

4. The must operate voltage is 72% or less of the rated voltage if the relay is mounted vertically and the terminals are pointed downwards.

**PCB Power Relay – G6M**

**■ Contact Ratings**

Rated load	Contact material	Rated carry current	Max. switching voltage	Max. switching current	Max. switching power	Min. permissible load
3 A at 250 VAC, 3 A at 30 VDC	AgNi	5 A	270 VAC, 125 VDC	5 A	750 VAC, 90 W	10 mA at 5 VDC (at 120 operations/min)

**■ Characteristics**

Contact resistance	Operate time	Release time	Insulation resistance	Dielectric strength	Impulse withstand voltage	Distance	Tracking Resistance (CTI)	Vibration resistance	Shock resistance	Endurance	Ambient temperature	Ambient humidity	Weight Approx.
100 mΩ max.	10 ms max.	5 ms max.	1,000 MΩ min. (at 500 VDC)	3,000 VAC, 50/60 Hz for 1 min between coil and contacts 750 VAC, 50/60 Hz for 1 min between contacts of same polarity	5,080 V (1.2 x 50 μs) between coil and contacts	Insulation Creepage (Typ) 3.5 mm Distance Clearance (Typ) 3.5 mm	250 V	Destruction: 10 to 55 Hz, 2.5-mm single amplitude (5.0-mm double amplitude) Malfunction: 10 to 55 Hz, 0.75-mm single amplitude (1.5-mm double amplitude)	Destruction: 1,000 m/s <sup>2</sup> Malfunction: 100 m/s <sup>2</sup>	Mechanical: 20,000,000 operations min. (at 18,000 operations/h) Electrical: 100,000 operations min. (3 A at 250 VAC/30 VDC, resistive load at 1,800 operations/h)	Operating: -40°C to 85°C (with no icing)	Operating: 5% to 85%	4 g

**■ Approved Standards**

UL508 (File No. E41515)/CSA C22.2 (No.14) (File No. LR31928)

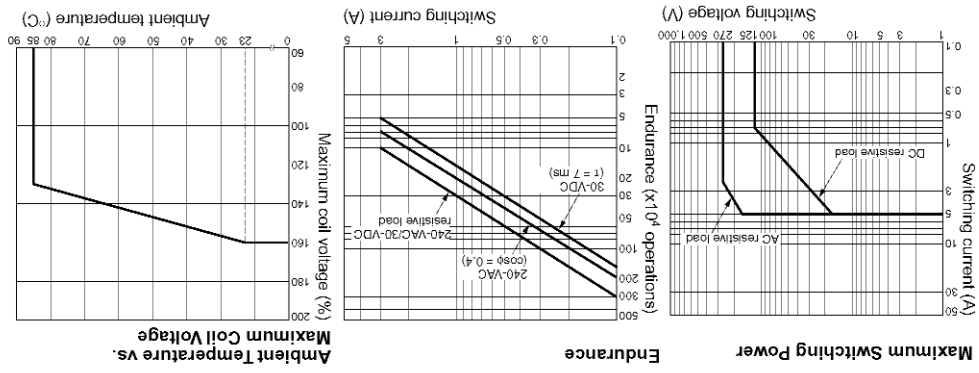
**EN 61810-1 (VDE Reg. no 400003429)**

Model	Coil ratings	Contact ratings
G6M-1A	4.5 to 24 VDC	5 A, 250 VAC (resistive load, 6,000 operations) 5 A, 30 VDC (resistive load, 6,000 operations) 3 A, 250 VAC (general use, 100,000 operations) 3 A, 30 VDC (general use, 100,000 operations)

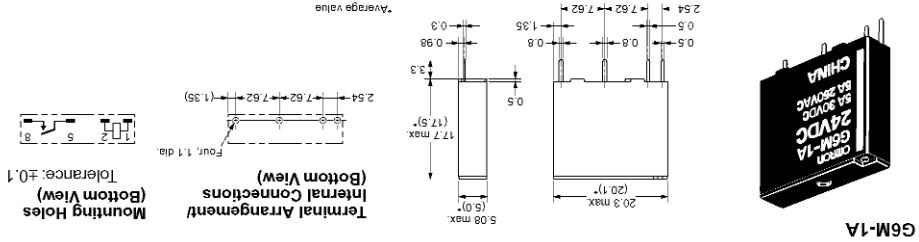
Model	Coil ratings	Contact ratings
G6M-1A	4.5, 5, 12 & 24VDC	3A, 250VAC (cos φ 1,50,000) 3A, 30VDC (0ms, 50,000)

**PCB Power Relay – G6M**

**Engineering Data**



**Dimensions**



**Precautions**

**BASIC INFORMATION**  
 Before actually committing any component to a mass-production situation, OMRON strongly recommends situational testing, in as close to actual production situations as possible. One reason is to confirm that the product will still perform as expected after surviving the many handling and mounting processes involved in mass production. Also, even though OMRON relays are individually tested a number of times, and each meets strict requirements, a certain testing tolerance is permissible. When a high-precision product uses many components, each depends upon the rated performance thresholds of the other components. Thus, the overall performance tolerance may accumulate into undesirable levels. To avoid problems, always conduct tests under the actual application conditions.

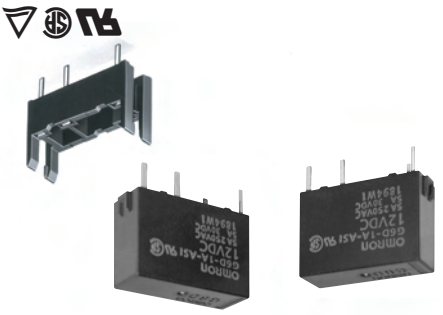
**General**  
 To maintain the initial characteristics of a relay, exercise care that it is not dropped or mishandled. For the same reason, do not remove the case of the relay; otherwise, the characteristics may degrade. Avoid using the relay in an atmosphere containing sulfuric acid (SO<sub>2</sub>), hydrogen sulfide (H<sub>2</sub>S), or other corrosive gases. Do not continuously apply a voltage higher than the rated maximum voltage to the relay. Never try to operate the relay at a voltage and a current other than those rated. Do not use the relay at temperatures higher than that specified in the catalog or data sheet.

**ALL DIMENSIONS SHOWN ARE IN MILLIMETRES.**  
 To convert millimetres into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

**PCB Power Relay – G6D**

**Slim, Miniature Relay, Capable of Relaying Programmable Controller and Temperature Controller Outputs**

- ROHS compliant.
- Slim and miniature: 17.5 x 6.5 x 12.5 mm (L x W x H).
- Ideal for high-density mounting
- Switches 5 A at 250 VAC/30 VDC.
- Allows 300,000 operations with a 2-A load at 250 VAC or 30 VDC.
- Actual load switching capability equals the G6B's capability.
- Washable construction.



Power Relays

**Ordering Information**

Classification	Contact form	Enclosure ratings	Model
Standard	SPT-NO	Fully sealed	G6D-1A-AS1

**Note:** When ordering, add the rated coil voltage to the model number.  
 Example: G6D-1A-AS1 12 VDC

**Model Number Legend**  
 G6D - □ □ - □ □ VDC  
 1 2 3 4

- Number of Poles**  
 1: 1 pole  
 A: SPT-NO
- Contact Form**  
 4: Rated Coil Voltage  
 AS1: Silver alloy (cadmium-free)
- Contact Material**  
 5: 12, 24 VDC

**Accessories (Order Separately)**

Connecting Socket	P6D-04P
-------------------	---------

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [General Purpose Relays](#) category:*

*Click to view products by [Omron](#) manufacturer:*

Other Similar products are found below :

[APF30318](#) [JVN1AF-4.5V-F](#) [PCN-105D3MHZ](#) [5JO-10000S-SIL](#) [5JO-1000CD-SIL](#) [5JO-400CD-SIL](#) [LY2S-AC220/240](#) [LYQ20DC12](#)  
[6031007G](#) [6131406HQ](#) [6-1393099-3](#) [6-1393099-8](#) [6-1393122-4](#) [6-1393123-2](#) [6-1393767-1](#) [6-1393843-7](#) [6-1415012-1](#) [6-1419102-2](#) [6-](#)  
[1423698-4](#) [6-1608051-6](#) [6-1608067-0](#) [6-1616170-6](#) [6-1616248-2](#) [6-1616282-3](#) [6-1616348-2](#) [6-1616350-1](#) [6-1616350-8](#) [6-1616358-7](#) [6-](#)  
[1616359-9](#) [6-1616360-9](#) [6-1616931-6](#) [6-1617039-1](#) [6-1617052-1](#) [6-1617090-2](#) [6-1617090-5](#) [6-1617347-5](#) [6-1617353-3](#) [6-1617801-8](#) [6-](#)  
[1617802-2](#) [6-1618107-9](#) [6-1618248-4](#) [M83536/1-027M](#) [CX-4014](#) [MAHC-5494](#) [MAVCD-5419-6](#) [703XCX-120A](#) [7-1393100-5](#) [7-1393111-7](#)  
[7-1393144-5](#) [7-1393767-8](#)