



## Contact Rating

<b>Load</b>	Resistive load ( $\cos\phi = 1$ )
<b>Rated Load</b>	10 A at 250 VAC (NO), 12 A at 120 VAC (NO), 5 A at 120 VAC (NO/NC) 10 A at 24 VDC (NO), 5 A at 24 VDC (NO/NC)
<b>Rated Carry Current</b>	12 A
<b>Max. switching voltage</b>	250 VAC, 125 VDC (30 VDC when UL/CSA standard is applied)
<b>Max. switching current</b>	AC: 12 A; DC: 12 A
<b>Max. switching power</b>	1,200 VA, 240 W
<b>Failure rate (reference value)</b>	100 mA at 5 VDC (P level: $\lambda_{60} = 0.1 \times 10^{-6}$ operation)

## Characteristics

<b>Contact resistance</b>	100 m $\Omega$ max.
<b>Operate time</b>	10 ms max.
<b>Release time</b>	5 ms max.
<b>Insulation resistance</b>	1,000 M $\Omega$ min. (at 500 VDC)
<b>Dielectric strength</b>	2,000 VAC, 50/60 Hz for 1 min between coil and contacts 750 VAC, 50/60 Hz for 1 min between contacts of same polarity
<b>Impulse withstand voltage</b>	4,500 V (1.2 x 50 ms) between coil and contacts
<b>Vibration resistance</b>	Destruction: 10 to 55 to 10 Hz, 0.75-mm single amplitude (1.5-mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75-mm single amplitude (1.5-mm double amplitude)
<b>Shock resistance</b>	Destruction: 1,000 m/s <sup>2</sup> Malfunction: 100 m/s <sup>2</sup>
<b>Endurance</b>	Mechanical: 10,000,000 operations min. (at 36,000 operations/hr) Electrical: 100,000 operations min. (at 1,800 operations/hr)
<b>Ambient temperature</b>	Operating: -25°C to 85°C (with no icing)
<b>Ambient humidity</b>	Operating: 5% to 85%
<b>Weight</b>	Approx. 12 g

## Approved Standards

### UL508, UL873 (File No. E41643)/CSA C22.2 No. 14, No. 0 (File No. LR31928)

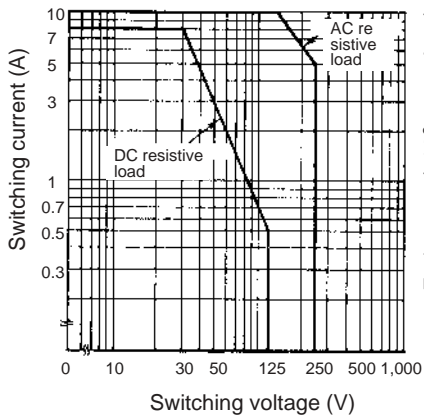
Model	Coil ratings	Contact ratings
G5LC-EU	5 to 24 VDC	NO: 10 A, 250 VAC (general use) 10 A, 24 VDC (resistive load) 1/8 hp, 120 VAC (50,000 cycles) 12 A, 120 VAC (resistive load) NC: 1/8 hp, 120 VAC (50,000 cycles)

### VDE DIN VDE 0435, DIN EN 60255 (File No. 6850ÜG)

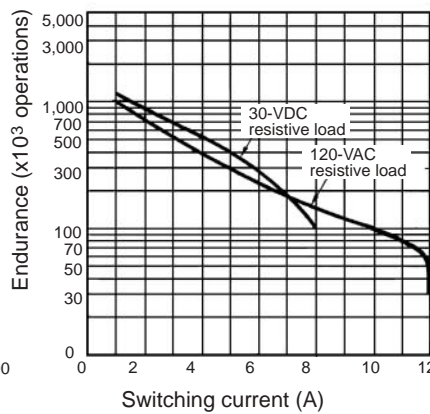
Model	Coil ratings	Contact ratings
G5LC-EU	Approx. 360 mW 5, 12, 24 VDC	5 A, 250 VAC (resistive load, 50,000 cycles) at 85°C. 10 A, 250 VAC (resistive load 50,000 cycles) (NO) at 85°C

# Engineering Data

**Maximum Switching Power  
G5LC-EU**

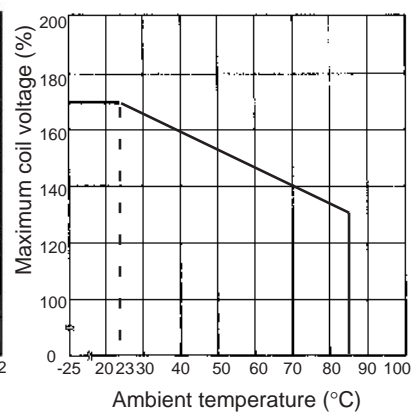


**Endurance  
G5LC-EU**



**Note:** Same curve as for 250-VAC resistive load

**Ambient Temperature vs.  
Maximum Coil Voltage**



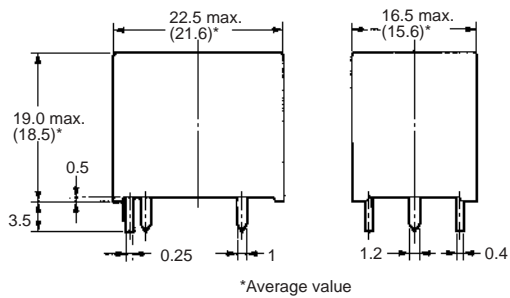
**Note:** The maximum coil voltage refers to the maximum value in a varying range of operating power voltage, not a continuous voltage.

# Dimensions

**Note:** 1. All units are in millimeters unless otherwise indicated.

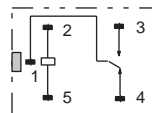
2. Orientation marks are indicated as follows:

**G5LC-EU**



**Terminal Arrangement/Internal Connections (Bottom View)**

**SPDT**

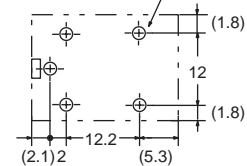


**Mounting Holes (Bottom View)**

Tolerance:  $\pm 0.1$  mm unless specified

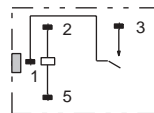
**SPDT**

Five,  $1.3^{+0.2}$  dia. holes



**Terminal Arrangement/Internal Connections (Bottom View)**

**SPST-NO**

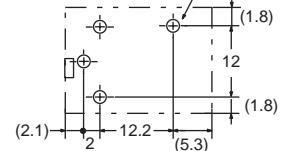


**Mounting Holes (Bottom View)**

Tolerance:  $\pm 0.1$  mm unless specified

**SPST-NO**

Four,  $1.3^{+0.2}$  dia. holes



## 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 MILLIMETERS.**

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.