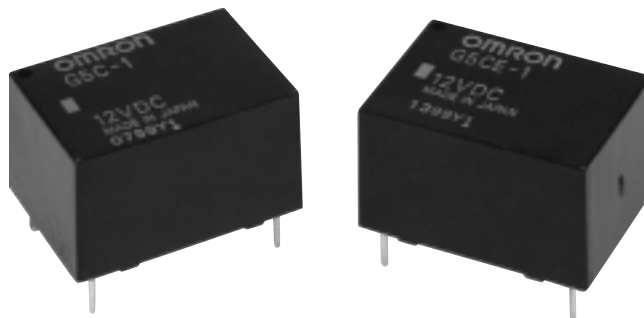


- Miniature 16 W x 22 L x 10.9 H mm
(0.63 W x 0.87 L x 0.43 H in)
- Low power consumption (150 mW)
- Flux tight and fully sealed construction
- Long electrical service life
- High switching capacity
- Ideal for switching power supplies on small appliances and output to industrial equipment



Ordering Information

To Order: Select the part number and add the desired coil voltage rating, (e.g., G5C-1-DC12).

| Type | Contact form | Construction | Part number |
|------------------|--------------|--------------|------------------|
| Standard | SPST-NO | Semi-sealed | G5C-1 |
| | | Sealed | G5C-14 |
| High capacity | | Semi-sealed | G5CE-1 |
| High sensitivity | | Semi-sealed | G5C-1-H |
| | | Sealed | G5C-14-H |
| Low sensitivity | | Semi-sealed | G5C-1-L |
| | | Sealed | G5C-14-L |
| PCB+QC | | Semi-sealed | G5CE-1-TP |

Specifications

CONTACT DATA

| Type | G5C-1-□-□ | G5CE-1-□ |
|-------------------------|---------------------------------|---------------------------------|
| Load | Resistive Load (p.f. = 1) | |
| Rated load | 10 A at 250 VAC, 10 A at 30 VDC | 15 A at 110 VAC, 10 A at 30 VDC |
| Contact material | AgCdO | |
| Carry current | 10 A | 15 A |
| Max. operating voltage | 250 VAC, 125 VDC | |
| Max. operating current | 10 A | 15 A |
| Max. switching capacity | 2,500 VA, 300 W | |
| Min. permissible load | 100 mA at 5 VDC | |

■ COIL DATA

Standard type/high capacity

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---------------------|--------------------|------------------------------|--------------------|-----------------|---|------------------------|
| | | | % of rated voltage | | | |
| 3 | 66.70 | 45 | 75% max. | 10% min. | 130% at 70°C (158°F) | Approx. 200 |
| 5 | 40.00 | 125 | | | | |
| 6 | 33.30 | 180 | | | | |
| 12 | 16.70 | 720 | | | | |
| 24 | 8.30 | 2,880 | | | | |
| 48 | 4.20 | 11,520 | | | | |
| 60 | 3.30 | 18,180 | | | 110% at 70°C (158°F) for high capacity type | |

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High-sensitivity type

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---------------------|--------------------|------------------------------|--------------------|-----------------|-------------------------|------------------------|
| | | | % of rated voltage | | | |
| 3 | 50.00 | 60 | 80% max. | 10% min. | 130% at 70°C (158°F) | Approx. 150 |
| 5 | 30.00 | 166.70 | | | | |
| 6 | 25.00 | 240 | | | | |
| 12 | 12.50 | 960 | | | | |
| 24 | 6.30 | 3,810 | | | | |
| 48 | 3.10 | 15,480 | | | | |

Low-sensitivity type

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---------------------|--------------------|------------------------------|--------------------|-----------------|-------------------------|------------------------|
| | | | % of rated voltage | | | |
| 3 | 120.00 | 25 | 80% max. | 10% min. | 110% at 70°C (158°F) | Approx. 360 |
| 5 | 72.00 | 69.40 | | | | |
| 6 | 60.00 | 100 | | | | |
| 12 | 30.00 | 400 | | | | |
| 24 | 15.00 | 1,600 | | | | |
| 48 | 7.50 | 6,400 | | | | |

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with a tolerance of $\pm 10\%$.
2. The operating characteristics are measured at a coil temperature of 23°C (73°F).

■ CHARACTERISTICS

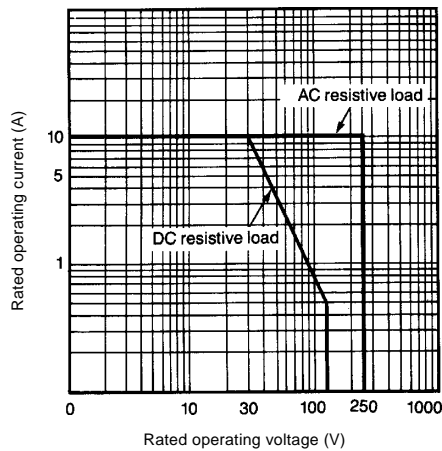
| | | |
|-----------------------|------------------------|--|
| Contact resistance | | 30 mΩ max. |
| Operate time | | 10 ms max. (mean value: 6.70 ms) 15 ms max. for high sensitivity type (mean value: 7.30 ms) |
| Release time | | 10 ms max. (mean value: 0.90 ms) |
| Bounce time | | 5 ms max. (mean value: 0.90 ms) |
| Operating frequency | Mechanical | 18,000 operations/hour |
| | Electrical | 1,200 operations/hour |
| Insulation resistance | | 1,000 MΩ min. (at 500 VDC) |
| Dielectric strength | | 2,500 VAC, 50/60 Hz for 1 minute between coil and contacts 1,000 VAC, 50/60 Hz for 1 minute between contacts of same pole |
| Vibration | Mechanical durability | 10 to 55 Hz, 1.50 mm (0.06 in) double amplitude |
| | Malfunction durability | 10 to 55 Hz, 1.50 mm (0.06 in) double amplitude |
| Shock | Mechanical durability | 1,000 m/s ² (approx. 100 G) |
| | Malfunction durability | 200 m/s ² (approx. 20 G) |
| Ambient temperature | Operating/storage | -25° to 70°C (-13° to 158°F) |
| Humidity | | 45% to 85% RH |
| Service Life | Mechanical | 20 million operations min. (at operating frequency of 18,000 operations/hour) |
| | Electrical | See "Characteristic Data" |
| Weight | | Approx. 8 g (0.28 oz) |

Note: Data shown are of initial value.

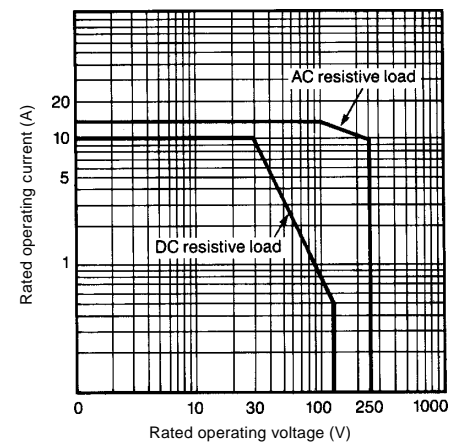
■ CHARACTERISTIC DATA

Maximum switching capacity

G5C-1, G5C-1-H, G5C-1-L, G5C-14

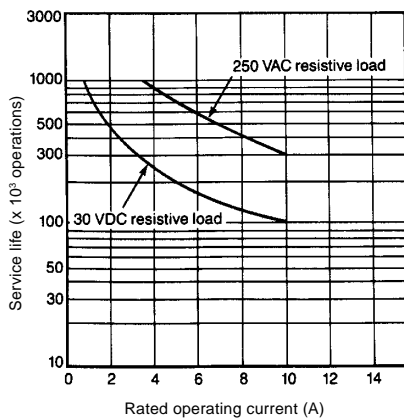


G5CE-1

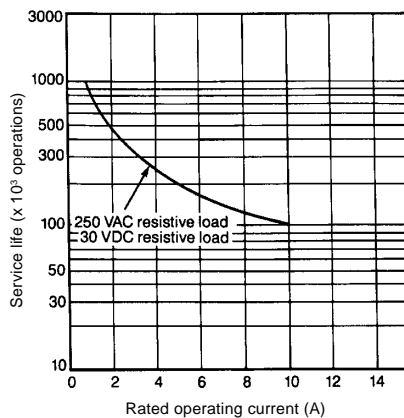


Electrical service life

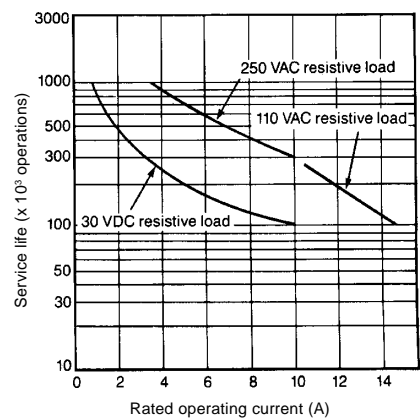
G5C-1, G5C-1-H, G5C-1-L



G5C-14



G5CE-1

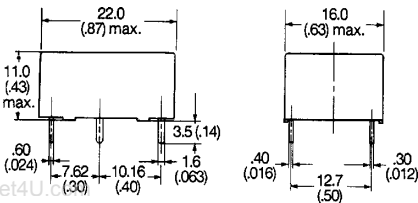


Dimensions

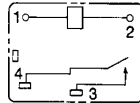
Unit: mm (inch)

■ RELAYS

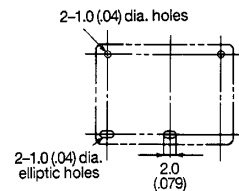
G5C□-1-□



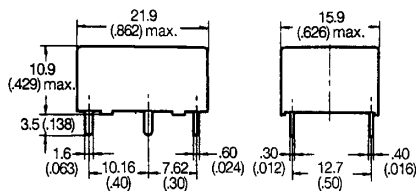
**Terminal arrangement/
Internal connections**
(Bottom view)



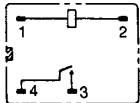
Mounting holes
(Bottom view)



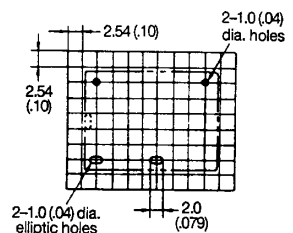
G5C(E)-1



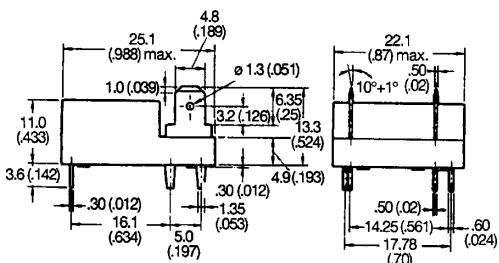
**Terminal arrangement/
Internal connections**
(Bottom view)



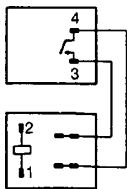
Mounting holes
(Bottom view)



G5CE-1-TP

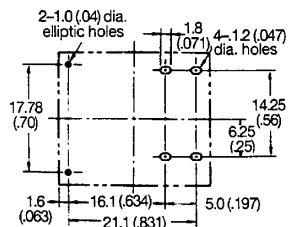


**Terminal arrangement/
Internal connections**
(Top view)



(Bottom view)

Mounting holes
(Bottom view)



Note: A tolerance of ± 0.10 mm (0.004 in) applies to all dimensions.

■ APPROVALS

UL (File No. E41515)/CSA (File No. LR31928)

| Type | Contact form | Coil ratings | Contact ratings |
|--------|--------------|--------------|--|
| G5C-1 | SPST-NO | 3 to 60 VDC | 15 A, 125 VAC (Resistive) 100,000 cycles |
| G5CE-1 | | | 10 A, 250 VAC (Resistive) 100,000 cycles |
| | | | 15 A, 125 VAC (General Purpose) 100,000 cycles |
| | | | 10 A, 250 VAC (General Purpose) 100,000 cycles |
| | | | 10 A, 30 VDC (Resistive) 100,000 cycles |

Note: 1. The rated values approved by each of the safety standards (e.g., UL and CSA) may be different from the performance characteristics individually defined in this catalog.
2. In the interest of product improvement, specifications are subject to change.

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9/97

Specifications subject to change without notice.

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