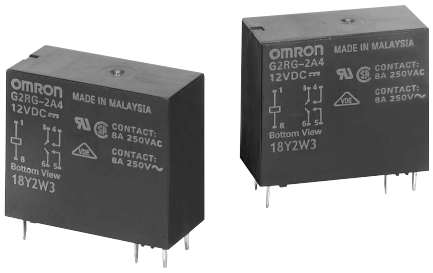
PCB Relay
G2RG

Power Relay with 1.5mm Contact Gap

- Clearance between contact terminals of the same polarity: 1.5 mm min.
- Conforms to VDE0435 (VDE approval: C250 insulation grade). UL recognized / CSA certified.
- Meets VDE0700 requirements for household products according to VDE0110.
- Cadmium-free contacts ensuring environment-friendly use.
- Tracking resistance: CTI > 250 V.
- 10 kV impulse withstand voltage between coil and contacts.
- RoHS Compliant.



NEW

Ordering Information

To order: Select the part number and add the rated coil voltage to the part number. Example: G2RG-2A4 *DC12*.

Type	Contact material	Contact form	Construction	Model
Special contact gap	AgSnO	DPST-NO	Fully sealed	**G2RG-2A4**

Specifications

■ Coil Data

Item	Description	
Rated voltage	12 VDC	24 VDC
Rated current	66.6 mA	33.3 mA
Coil resistance	180 Ω	720 Ω
Must operate voltage	80% max. of rated voltage (DPST-NO)	
Must release voltage	10% min. of rated voltage	
Max. voltage	140% of rated voltage (at 23°C)	
Power consumption	Approx. 800 mW	

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

■ Contact Data

Item	DPST-NO
Load	Resistive load ($\cos\phi = 1$)
Rated load	8 A at 250 VAC
Contact material	Silver alloy
Rated carry current	8 A
Max. switching voltage	380 VAC, 125 VDC
Max. switching current	8 A
Max. switching capacity	2,000 VA
Min. permissible load (See note)	10 mA at 5 VDC

Note: P level: $\lambda_{60} = 0.1 \times 10^{-6}$ ops at a switching frequency of 120 operations/min.

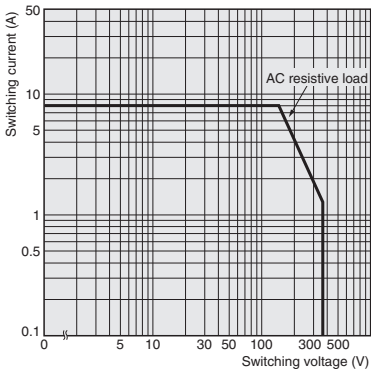
■ Characteristics

Contact resistance	100 mΩ max.
Operation time	15 ms max.
Release time	5 ms max.
Max. operating frequency	Mechanical: 18,000 operations/hr. Electrical: 1,800 operations/hr. (under rated load)
Insulation resistance	1,000 MΩ min. (at 500 VDC)
Dielectric strength	5,000 VAC, 50/60 Hz for 1 min. between coil and contacts 3,000 VAC, 50/60 Hz for 1 min. between contacts of different polarity 1,000 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 (approx. 100 G) Malfunction: 200 m/s^2 when energized (approx. 20 G); 100 m/s^2 when no energized (approx. 10 G)
Life expectancy	Mechanical: 1,000,000 operations min. (at 18,000 operations/hr.) Electrical: 10,000 operations min. (at 1,800 operations/hr. under rated load)
Ambient temperature	Operating: -40°C to 70°C (with no icing or condensation)
Ambient humidity	Operating: 5% to 85%
Weight	Approx. 17.2 g

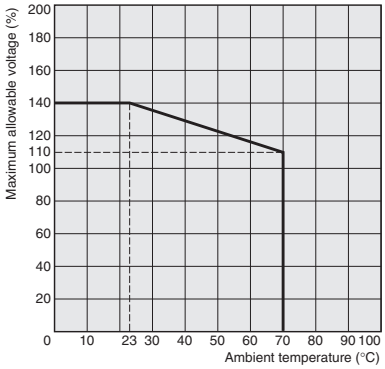
Note: Values in the above table are the initial values, measured at an ambient temperature of 23°C

Engineering Data

Maximum Switching Capacity



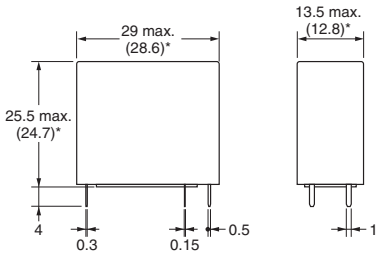
Ambient Temperature vs Maximum Allowable Voltage

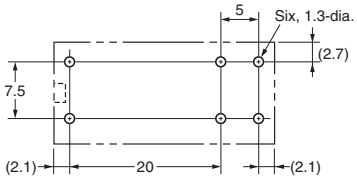


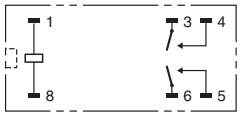
Dimensions

Unit: mm (inch)

DPST-NO Relays







(The coil has no polarity)

*Figures in parentheses indicate average values.

Note: The G2RG-2A4 has the same terminal arrangement as the G2R-2A4, but the switch capacity and electrical endurance are different. Confirm that correct operation is possible in the actual operating conditions before use.

■ Approvals

UL Recognized (File No. E441643)
CSA Certified (File No. LR31928)

Model	Contact Form	Coil Rating	Rating	Number of test operations
G2RG-2A4	DPST-NO	12 to 24 VDC	8A at 250 VAC (Resistive), 70°C	10 x10^3

VDE0435 (Approval No. 6166)

Model	Contact Form	Coil Rating	Rating
G2RG-2A4	DPST-NO	12, 24 VDC	250 VAC, 8 A, (resistive)

Note: The approved rated values for international standards are different from the individually specified characteristic values. Be sure to confirm that the required standards are satisfied before actual use.

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

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