

### Double-pole Relays Ideal for Protecting Audio Speakers

- A compact DPST-NO relay (25 x 11.5 x 16.5 mm).
- Employs a single crossbar for high contact reliability.
- Sealed construction for resistance to ambient conditions (not submersible).
- High-capacity models (750 VA) available for vending machines.
- IEC/CENELEC/UL/CSA approved.



### Ordering Information

Sealing structure	Contact form	Classification	Model
Plastic-sealed (not submersible)	DPST-NO	Standard	G5Z-2A
		High-capacity	G5Z-2A-E

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

Example: G5Z-2A 12 VDC

\_\_\_\_\_ Rated coil voltage

#### Model Number Legend:

G5Z -    -       VDC  
           1    2    3

1. **Contact Form**  
 2A: 2 poles (DPST-NO)

2. **Classification**  
 None: Standard type  
 E: High-capacity type

3. **Rated Coil Voltage**  
 5, 12, 24 VDC

### Specifications

#### ■ Coil Ratings

Rated voltage	5 VDC	12 VDC	24 VDC
Rated current	106 mA	44.2 mA	22.1 mA
Coil resistance	47 Ω	270 Ω	1,090 Ω
Must operate voltage	80% of rated voltage max.		
Must release voltage	10% of rated voltage min.		
Max. permissible voltage	110% of rated voltage		
Power consumption	Approx. 0.53 W		

## ■ Contact Ratings

Model	G5Z-2A	G5Z-2A-E
Rated load	5 A at 40 VAC; 5 A at 24 VDC, resistive load ( $\cos\phi = 1$ )	3 A at 250 VAC, resistive load ( $\cos\phi = 1$ )
Rated carry current	5 A	
Max. switching voltage	40 VAC, 24 VDC	250 VAC
Max. switching current	5 A	
Max. switching capacity	200 VA, 120 W	750 VA
Min. permissible load	1 mA, 1 VDC	

Note: P level:  $\lambda_{60} = 0.1 \times 10^{-6}$  operations (with an operating frequency of 120 operations/min)

## ■ Characteristics

Contact resistance	50 mW max.
Operating time	15 ms max.
Release time	5 ms max.
Insulation resistance	1,000 MW min.
Dielectric withstand voltage	2,000 VAC 50/60 Hz for 1 min between coil and contact
	1,000 VAC 50/60 Hz for 1 min between contacts of same polarity
	2,000 VAC 50/60 Hz for 1 min between contacts of difference polarity
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 <sup>2</sup> (approx. 100G)
	Malfunction: 100 m/s <sup>2</sup> (approx. 10G)
Life expectancy	Mechanical: 500,000 operations min.
	Electrical: 30,000 operations min.
Ambient temperature	Operating: -25°C to 55°C (with no icing)
Ambient humidity	Operating: 35% to 85%
Weight	Approx. 8 g

## ■ Approved Standards

UL508 (File No.41515)/CSA 22.2 No.0, No.14 (File No.LR31928)

Model	Coil ratings	Contact ratings
G5Z-2A	5 to 24 VDC	5 A, 40 VAC (resistive) 5 A, 24 VDC (resistive)
G5Z-2A-E		3 A, 250 VAC (resistive) 5 A, 24 VDC (resistive)

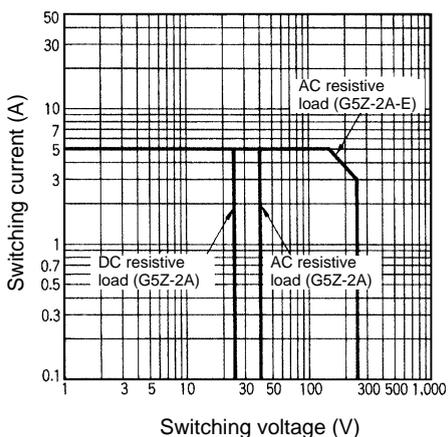
TÜV VDE0435 IEC255, IEC950, IEC65\*, IEC335-1, IEC378\*, EN60335-1, EN60950 (File No.R9251229)

Model	Coil ratings	Contact ratings	Contact ratings
G5Z-2A	5 to 24 VDC	5 A, 40 VAC~ ( $\cos\phi = 1$ ) 5 A, 24 VDC= (0 ms)	Electrical life: See "Life expectancy" Mechanical life: See "Life expectancy" Duty level: class III Operating range: 1
G5Z-2A-E		3 A, 250 VAC~ ( $\cos\phi = 1$ ) 5 A, 24 VDC= (0 ms)	Pick-up class: a Pollution degree: 2 Overvoltage category: II Material group: IIIa Ambient temperature: -25°C to 55°C

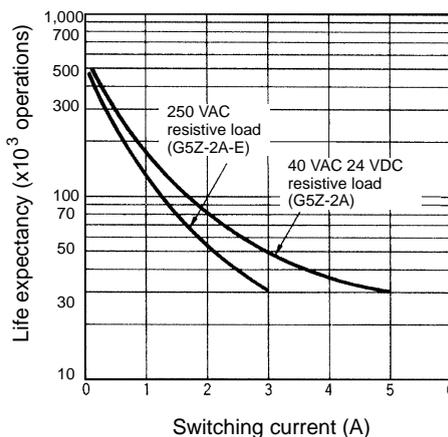
Max. operating voltage at 250 V (\*max. operating voltage at 130 V)

# Engineering Data

## Max. Switching Capacity

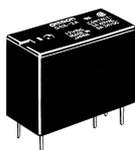


## Life Expectancy



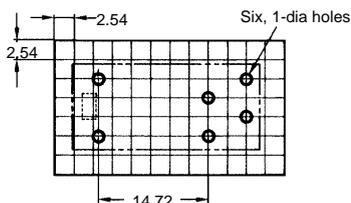
# Dimensions

- Note:** 1. All units are in millimeters unless otherwise indicated.  
 2. Orientation marks are indicated as follows:  

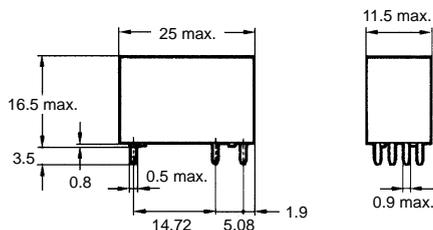
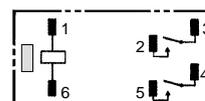


### Mounting Holes (Bottom View)

Tolerances: +0.1 mm.



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



# Precautions

- Do not submerge the relay.