



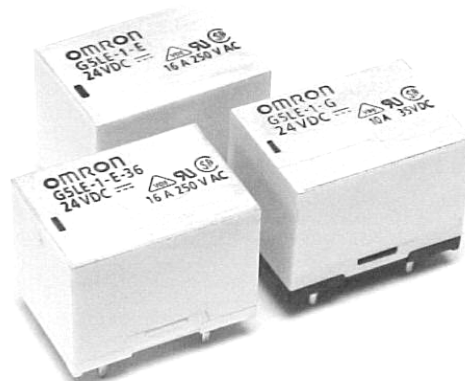
**THE DATASHEET OF
G5LE-1-E DC5**



Single-pole 10A35VDC 0.8mm Contact Gap Power Relay : G5LE-G

Single-pole 16A250VAC Power Relay : G5LE-E

- Sub-miniature 'sugar cube' relay with universal terminal footprint.
- UL class-F coil insulation system.
- Tracking resistance: CTI>250.
- Withstands impulse of up to 4,500 V.
- RoHS compliant.



Ordering Information

Enclosure Rating	Contact Form	Rated load	
		10A 35VDC	16A 250VAC
Flux protection	SPDT	G5LE-1-G	G5LE-1-E
	SPST-NO	G5LE-1A-G	G5LE-1A-E

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

Examples : G5LE-1-E 12 VDC
└──────────┘ Rated coil voltage

Model Number Legend

G5LE - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 VDC

1. Number of Poles

1 : 1 pole

2. Contact Form

None : SPDT
 A : SPST-NO

3. Enclosure ratings

None : Flux protection

4. Insulation System

None : Class F (155°C)

8 Rated Coil Voltage

5, 12 & 24 (for suffix-E)
 9, 12, 20 & 24 (for suffix-G)

5. Classification

G : 0.8mm contact gap type
 E : High capacity type

6. Coil Power Consumption / Coil Characteristics

None : Approx. 400mW (applicable to suffix -E only)
 None : Approx. 700mW (applicable to suffix -G only)
 36 : Approx. 360mW (applicable to suffix -E only)

7. Packaging

None : Standards Polystyrene tray
 SP : Anti-static Tube packing

Specifications

■ Coil Ratings

700-mW Type (G5LE-G)

Rated voltage	9 VDC	12 VDC	20 VDC	24 VDC
Rated current	77.8 mA	58.3 mA	35.0 mA	29.2 mA
Coil resistance	115.7 Ω	205.7 Ω	571.4 Ω	822.9 Ω
Must operate voltage	75% of rated voltage (max.)			
Must release voltage	10% of rated voltage (min.)			
Max. voltage	120% of rated voltage at 85°C, 150% of rated voltage at 23°C			
Power consumption	Approx. 700 mW			

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

400-mW Type (G5LE-E)

Rated voltage	5 VDC	12 VDC	24 VDC
Rated current	80.0 mA	33.3 mA	16.7 mA
Coil resistance	62.5 Ω	360.0 Ω	1440.0 Ω
Must operate voltage	75% of rated voltage (max.)		
Must release voltage	10% of rated voltage (min.)		
Max. voltage	130% of rated voltage at 85°C, 170% of rated voltage at 23°C		
Power consumption	Approx. 400 mW		

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

360-mW Type (G5LE-E-36)

Rated voltage	5 VDC	12 VDC	24 VDC
Rated current	72.0 mA	30.0 mA	15.0 mA
Coil resistance	69.4 Ω	400.0 Ω	1600.0 Ω
Must operate voltage	75% of rated voltage (max.)		
Must release voltage	10% of rated voltage (min.)		
Max. voltage	130% of rated voltage at 85°C, 170% of rated voltage at 23°C		
Power consumption	Approx. 360 mW		

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

■ Contact Ratings

Item	G5LE-G	G5LE-E/-E-36
Load	Resistive load (cos $\phi=1$)	Resistive load (cos $\phi=1$)
Rated load	10A at 35VDC	16A at 250VAC
Rated carry current	10A	16A
Max. switching voltage	35VDC	250VAC
Max. switching current	DC : 10A	AC : 16A
Max. switching capacity	350W	4000VA
Min. permissible load	100mA at 5VDC	100mA at 5VDC

■ Characteristics

Contact resistance	100mΩ max.
Operate time	10ms max.
Release time	5ms max.
Bounce time	Operate : Approx. 0.6 ms Release : Approx. 7.2 ms
Max. switching frequency	Mechanical : 18,000 operations/hr Electrical : *1,800 operations/hr
Insulation resistance	100MΩ min. (at 500VDC)
Dielectric strength	750VAC (for suffix -E), 50/60 Hz for 1 min. between contacts of same polarity 1500VAC (for suffix -G), 50/60 Hz for 1 min. between contacts of same polarity 2,000VAC, 50/60 Hz for 1 min. between coil and contacts
Impulse withstand voltage	4,500V between coil and contacts, 1.2 X 50 μsec
Vibration resistance	Destruction : 10 to 55Hz, 1.5mm double amplitude Malfunction : 10 to 55Hz, 1.5mm double amplitude
Shock resistance	Destruction : 1,000m/s ² (approx. 100G) Malfunction : 100m/s ² (approx. 10G)
Life expectancy	Mechanical : 10,000,000 operations min. (at 18,000 operations/hr) Electrical : *100,000 operations min. (at 1,800 operations/hr, 12A 250VAC)
Ambient temperature	Operating : -40°C to 85°C
Ambient humidity	Operating : 35% to 85%
Weight	Approx. : 12g

Note : * Applicable for G5LE-1-E normally open contact only.

■ Approved Standards

**UL508, UL114, UL478, UL325, UL873, UL1409 (File No. E41643)/CSA
C22.2 No. 14, No. 1 (File No. LR31928)**

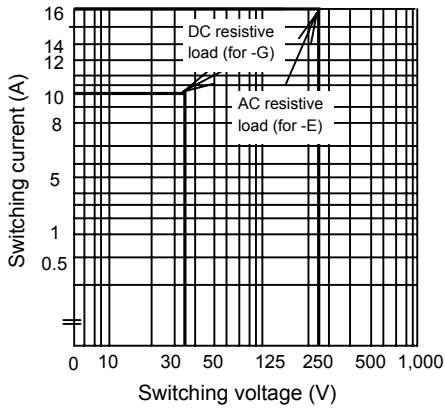
Model	Coil ratings	Contact ratings
G5LE-E/-E-36	5 to 24 VDC	16 A, 250 VAC (general use, normally open contact, 50,000 cycles) 12 A, 250 VAC (general use, normally open contact, 105°C, 100,000 cycles) 12 A, 250 VAC (general use, normally close contact, 30,000 cycles)
G5LE-G	9 to 24 VDC	10 A, 35 VDC (resistive, normally open contact, 100,000 cycles) 10 A, 35 VDC (resistive, normally close contact, 50,000 cycles)

EN61810-1 (2nd Ed) / EN60255-25 (VDE Reg. No. 6850)

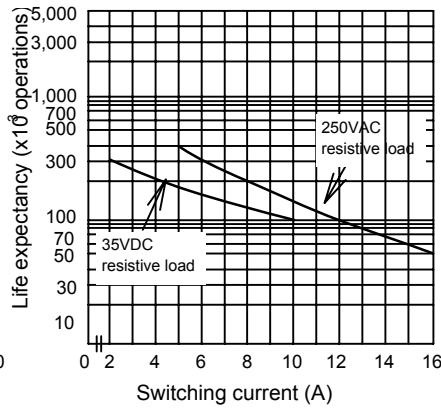
Model	Coil Rating	Contact rating
G5LE-E/-E-36	5 to 24 VDC	16 A, 250 VAC (resistive, normally open contact, 85°C 50,000 cycles) 12 A, 250 VAC (resistive, normally open contact, 105°C, 75,000 cycles)
G5LE-G	9 to 24 VDC	10 A, 35 VDC (resistive, normally open contact, 100,000 cycles) 10 A, 35 VDC (resistive, normally close contact, 50,000 cycles)

Engineering Data

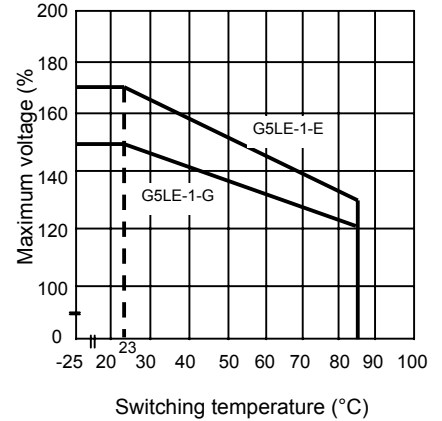
Max. Switching Capacity



Life Expectancy



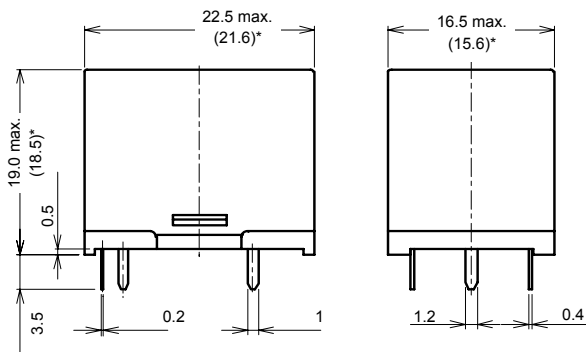
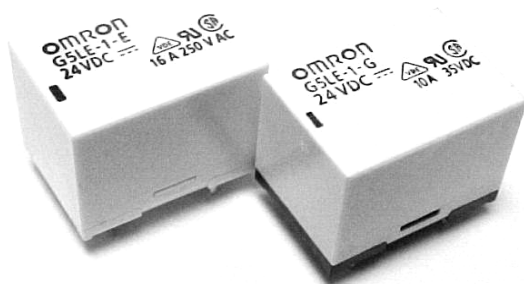
Ambient Temp. Vs Max. Voltage



Note: The maximum coil voltage refers to the maximum value in a varyin range of operating power voltage not a continuous voltage

Dimensions

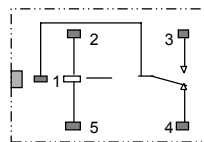
- Note: 1. All units are in millimeters unless otherwise indicated.
 2. Orientation marks are indicated as follows :



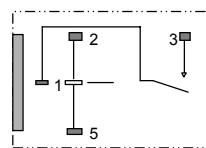
*Average value

Terminal Arrangement/Internal Connections (Bottom View)

SPDT

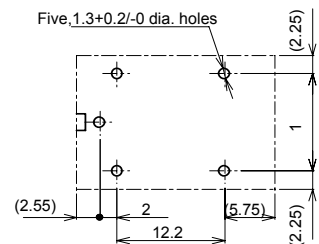


SPST-NO

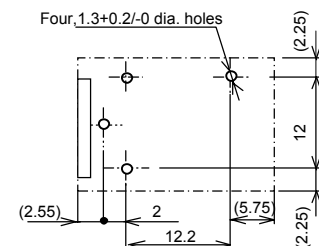


Mounting Holes (Bottom View)
Tolerance: ±0.1 mm unless specified

SPDT



SPST-NO



Packaging

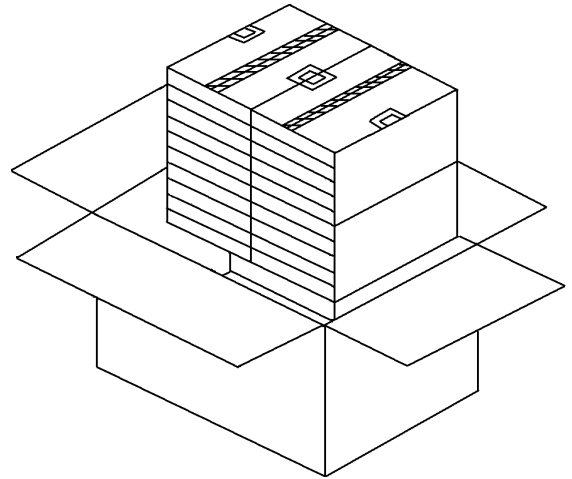
Note : 1. All units are millimeters unless otherwise indicated.

■ Polystyrene Trays Packing

1 Polystyrene	=	100	pcs relay
1 Sleeve Packing	=	5	polystyrene tray
1 Carton	=	4	sleeve packing
	=	2000	pcs relay
Weight	=	Approx. 24 Kg per carton	

- Size of polystyrene tray: Approx. 311 x 196 x 35mm (L x W xH)

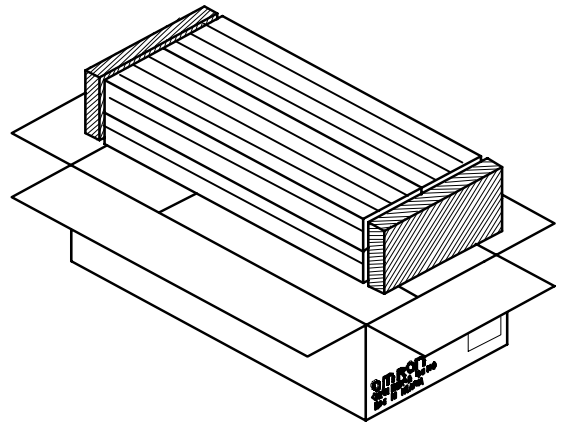
- Size of Carton: Approx. 450 x 316 x 320 mm (L x W xH)



■ Tube Packing

1 Tube	=	25	relays
1 Carton	=	40	tubes
	=	1,000	relays
Weight	=	Approx. 12 Kg per carton	

- Size of Carton: Approx. 512 x 252 x 105 mm (L x W xH)



■ Ordering Information - Packaging

G5LE-1-E-□DC12	by OMB	<u>KEY</u>	<u>DESCRIPTION</u>
		None	: Standards Polystyrene tray
		SP	: Anti-static Tube packing



G5LE-1-G-□DC20	by OMB	<u>KEY</u>	<u>DESCRIPTION</u>
		None	: Standards Polystyrene tray
		SP	: Anti-static Tube packing

ALL DIMENSION SHOWN ARE IN MILLIMETERS

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

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