

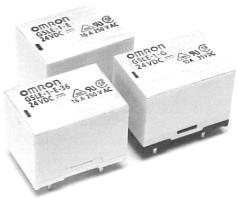
PCB Relay

G5LE-E/-G

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		
	Contact Form	10A 35VDC 16A 250VAC	16A 250VAC	
	SPDT	G5LE-1-G	G5LE-1-E	
Flux protection	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 - $\frac{1}{2}$ $\frac{1}{2}$ - $\frac{1}{3}$ - $\frac{1}{4}$ - $\frac{1}{5}$ - $\frac{1}{6}$ - $\frac{1}{7}$ $\frac{1}{8}$

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 ±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 ±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.)	75% of rated voltage (max.)		
Must release voltage	10% of rated voltage (min.)	10% of rated voltage (min.)		
Max. voltage	130% of rated voltage at 85°C,	130% of rated voltage at 85°C, 170% of rated voltage at 23°C		
Power consumption	Approx. 360 mW	Approx. 360 mW		

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

■ Contact Ratings

Item	G5LE-G	G5LE-E/-E-36
Load	Resistive load (cos Ø=1)	Resistive load (cos Ø=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	100M Ω 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 55hHz, 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.

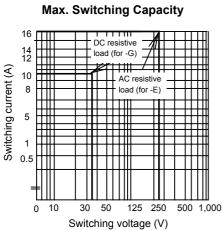
■ Approved Standards UL508, UL114, UL478, UL325, UL873, UL1409 (File No. E41643)/CSA C22.2 No. 14, No. 1 (File No. LR31928)

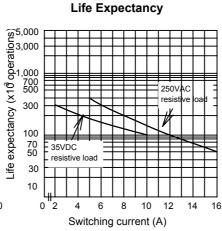
Model	Coil ratings	Contact ratings
G5LE-E/-E-36	5 to 24 VDC	16 A, 250 VAC (general use, normally open contact, 50,000 cycles) 12 A, 250 VAC (general use, normally open contact, 105°C, 100,000 cycles) 12 A, 250 VAC (general use, normally close contact, 30,000 cycles)
G5LE-G	9 to 24 VDC	10 A, 35 VDC (resistive,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

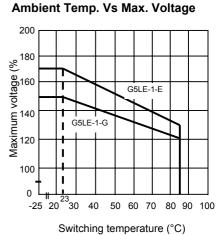
EN61810-1 (2nd Ed) / EN60255-25 (VDE Reg. No. 6850)

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





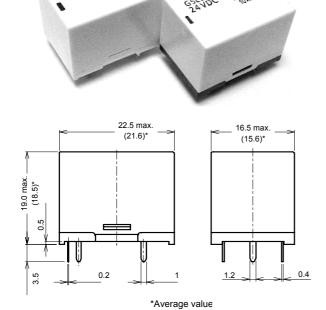


to the maximum coil voltage refers to the maximum value in a varyin range of operating power voltage not a continuous voltage

Dimensions

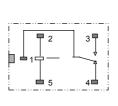
lote: 1. All units are in millimeters unless otherwise indicated.

2. Orientation marks are indicated as follows:

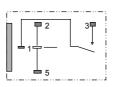


Terminal
Arrangenement/Internal
Connections
(Bottom View)

SPDT



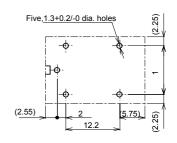
SPST-NO



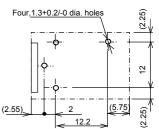
Mounting Holes (Bottom View)

Tolerance: ±0.1 mm unless specified

SPDT



SPST-NO



Packaging

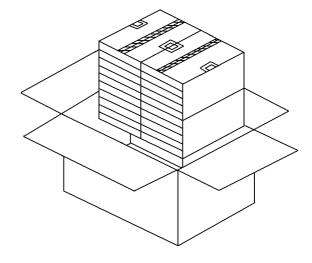
Note: 1. All units are millimeters unless otherwise indicated.

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)

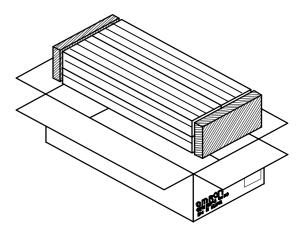


Tube Packing

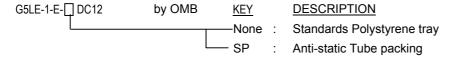
1 Tube = 25 relays 1 Carton = 40 tubes

= 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-G- DC20 by OMB KEY DESCRIPTION None : Standards Polys

None : Standards Polystyrene traySP : Anti-static Tube packing

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

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