

PCB Relay G5LE

A Cubic, Single-pole 10-A Power Relay

- High Capacity (-E) and 0.8mm Contact Gap (-G) versions
- Subminiature “sugar cube” relay with universal footprint.
- Conforms to EN 61810-1. UL recognized/ CSA certified.
- UL class-F coil insulation model available (UL class-B coil insulation for standard model).
- Withstands impulse of up to 4,500 V.
- 400-mW and 360-mW coil power types available.
- RoHS Compliant



Ordering Information

Enclosure ratings	Contact form/Style	Contact material			
		AgSnO ₂	AgSnIn		
		Standard	Standard	High Capacity	0.8mm Contact Gap
Flux protection	SPDT	G5LE-1 G5LE-1-CF	G5LE-1-ASI G5LE-1-ASI-CF	G5LE-1-E	G5LE-1-G
	SPST-NO	G5LE-1A G5LE-1A-CF	G5LE-1A-ASI G5LE-1A-ASI-CF	G5LE-1A-E	G5LE-1A-G
Fully sealed	SPDT	G5LE-14 G5LE-14-CF	G5LE-14-ASI G5LE-14-ASI-CF	---	---
	SPST-NO	G5LE-1A4 G5LE-1A4-CF	G5LE-1A4-ASI G5LE-1A4-ASI-CF	---	---

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

Example: G5LE-1 DC12
└─── Rated coil voltage

Model Number Legend

G5LE - - - - - -DC

1 2 3 4 5 6 7 8 9 10

1. Number of Poles

1: 1 pole

2. Contact Form

None: SPDT
 A: SPST-NO

3. Enclosure Ratings

None: Flux protection
 4: Fully sealed
 (Not applicable with -E and -G versions)

4. Contact Material

None: AgSnO₂ (AgSnIn for -E and -G versions)
 ASI: AgSnIn

5. Insulation System

None: Class B (Class F for -E and -G versions)
 CF: Class F (UL and CSA only)

6. Coil Power Consumption/Coil Characteristic

None: Approx. 400 mW (Approx. 700mW for -G versions)
 36: Approx. 360 mW (Not applicable for -G versions)

7. Approved Standards

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

8. Approved Standards

None: UL, CSA, and VDE

9. Packaging

None: Standard polystyrene tray
 SP: Anti-static tube packaging

10. Rated Coil Voltage

5, 9, 12, 24, 48 VDC

Specifications

■ Coil Ratings

700-mW Type (G5LE-G)

Rated voltage	9 VDC	12 VDC	20 VDC	48 VDC
Rated current	77.8mA	58.3mA	35.0mA	29.2mA
Coil resistance	115.7 Ω	205.7 Ω	571.4 Ω	822.9 Ω
Must operate voltage	75% max. of rated voltage (max.)			
Must release voltage	10% min. 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

Rated voltage	5 VDC	9 VDC	12 VDC	24 VDC	48 VDC
Rated current	79.4 mA	45 mA	33.3 mA	16.7 mA	8.33 mA
Coil resistance	63 Ω	200 Ω	360 Ω	1,440 Ω	5,760 Ω
Must operate voltage	75% max. of rated voltage (max.)				
Must release voltage	10% min. 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

Rated voltage	5 VDC	9 VDC	12 VDC	24 VDC	48 VDC
Rated current	72 mA	40 mA	30 mA	15 mA	7.5 mA
Coil resistance	70 Ω	225 Ω	400 Ω	1,600 Ω	6,400 Ω
Must operate voltage	75% max. of rated voltage (max.)				
Must release voltage	10% min. 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 ±10%.

■ Contact Ratings

	Standard	G5LE-G	G5LE-E
Load	Resistive load (cosφ = 1)		
Rated load	10 A at 120 VAC; 8 A at 30 VDC 10A at 240VAC (12 and 24 VDC coil)	10A at 35VDC	16A at 250VAC
Contact Material	AgSnO ₂ (AgSnIn optional)	AgSnIn	AgSnIn
Rated carry current	10 A	10A	16A
Max. switching voltage	250 VAC, 125 VDC (30 VDC when UL/CSA standard is applied)	35VDC	250VAC
Max. switching current	AC: 10 A; DC: 8 A	DC: 10A	AC: 16A
Max. switching power	1,200 VA, 240 W	350W	4,000VA
Minimum Permissible Load (See note)	100 mA at 5 VDC		

Note: Reference value - P level: $\lambda_{60} = 0.1 \times 10^{-6}$ operations