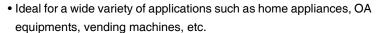
G5LE PCB Power Relay

Cubic, Single-pole 10A Power Relay



- Ambient Operating Temperature 85°C
- UL class-B coil insulation for standard model.
- UL, CSA, EN standards approved and conforms to Electrical Appliance and Material Safety Law (300 V max.).



■Model Number Legend

G5LE-

1 2 3

1. Number of Poles

1: 1-pole

2. Contact Form

None: SPDT (1c) A: SPST-NO (1a)

3. Enclosure rating

None: Flux protection 4: Fully sealed

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■Application Examples

- Home appliances
- OA equipments
- · Vending machines

■Ordering Information

		Enclosure rating	Flux pro	otection	Fully s	ealed	Minimun
Terminal Shape	Classification	Contact form	Model	Rated coil voltage	Model	Rated coil voltage	packing unit
				5 VDC		5 VDC	
		SPDT (1c)	G5LE-1	12 VDC	G5LE-14	12 VDC	
PCB	Standard			24 VDC		24 VDC	100 pcs/
terminals	Sianuaru			5 VDC		5 VDC	tray
		SPST-NO (1a)	G5LE-1A	12 VDC	G5LE-1A4	12 VDC	
				24 VDC		24 VDC	

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

Example: G5LE-1 DC5

-Rated coil voltage

However, the notation of the coil voltage on the product case as well as on the packing will be marked as $\square\square$ VDC.

■Ratings

●Coil

Rated voltage	Rated current (mA)	Coil resistance (Ω)	Must operate voltage (V)	Must release voltage (V) of rated voltage	Max. voltage (V)	Power consumption (mW)
5 VDC	79.4	63			170%	
12 VDC	33.3	360	75% max.	10% min.	at 23°C	Approx. 400
24 VDC	16.7	1,440			at 25 0	

Note 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of $\pm 10\%$.

- 2. The operating characteristics are measured at a coil temperature of 23°C.
- 3. The "Max. voltage" is the maximum voltage that can be applied to the relay coil.

●Contacts

Item	Load	Resistive load	Inductive lead (cos			
Contact type		Single				
Contact material		Ag-alloy	(Cd free)			
Rated load		10 A at 120 VAC; 8 A at 30 VDC	5 A at 120 VAC; 4 A at 30 VDC			
Rated carry current		10 A				
Max. switching voltage		250 VAC, 125 VDC (30 VDC when UL/CSA standard is applied)				
Max. switching current		10 A 5 A				

■Characteristics

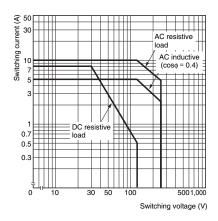
		Lian o	
Contact res		100 mΩ max.	
Operate tim		10 ms max.	
Release tim	ie	5 ms max.	
Insulation re	esistance *2	100 M Ω min.	
Dielectric	Between coil and contacts	2,000 VAC, 50/60 Hz for 1 min	
strength	Between contacts of the same polarity	750 VAC, 50/60 Hz for 1 min	
Impulse between withstand coil and voltage contacts		4,500 V (1.2×50 μs)	
Vibration resistance	Destruction	10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)	
	Malfunction	10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)	
Shock	Destruction	1,000 m/s ²	
resistance	Malfunction	100 m/s ²	
Durability	Mechanical	10,000,000 operations min. (at 18,000 operations/hr)	
,	Electrical	100,000 operations min. (at 1,800 operations/hr)	
Failure rate (reference v	` '	100 mA at 5 VDC	
Ambient op	•	-25°C to 85°C (with no icing or condensation)	
Ambient op humidity	erating	35% to 85%	
Weight		Approx. 12 g	

Note. The data given above are initial values

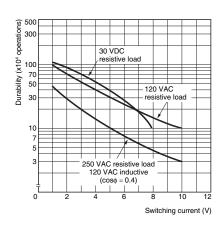
- Measurement conditions: 5 VDC, 1 A, voltage drop method.
- *2. Measurement conditions: The insulation resistance was measured with a 500 VDC megohmmeter at the same locations as the dielectric strength was measured.
- *3. This value was measured at a switching frequency of 120 operations/min.

■Engineering Data

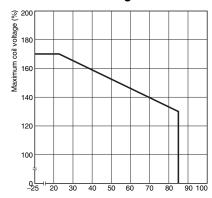
Maximum Switching Capacity



Durability

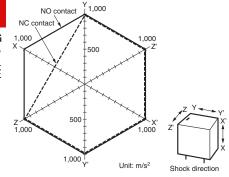


Ambient Temperature vs. **Maximum Coil Voltage**



Ambient temperature (°C) Note. The maximum coil voltage refers to the maximum value in a varying range of operating power voltage, not a continuous voltage.

Shock Malfunction



Number of Relays:5 pcs

Test Conditions: Shock was applied 3 times in

excitation and the level at which

was measured.

Rating:

each direction with and without

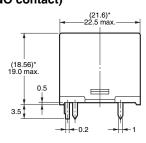
the shock caused malfunction

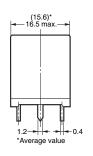
100 m/s²

■Dimensions

G5LE-1 (SPDT contact) G5LE-1A (SPST-NO contact)







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

(2.55) 2

SPDT (1c) Five,1.3^{+0.2} dia. holes

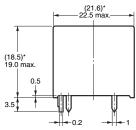


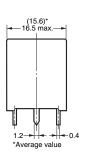
SPDT (1c)

(Indicates average dimensions.)

G5LE-14 (SPDT contact) G5LE-1A4 (SPST-NO contact)



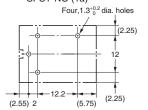


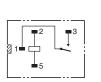


SPST-NO (1a) SPST-NO (1a)

(2.25)

(5.75)





(Indicates average dimensions.)

Note. Orientation marks are indicated as follows:[]]

■Approved Standards

UL Recognized: 💫 (File No. E41643)

Model	Contact form	Coil ratings	Contact ratings	Number of test operations
G5LE	SPDT-NO (1a) SPDT (1c)	5 to 24 VDC	10 A, 250 VAC (general use) at 40°C 8 A, 30 VDC (resistive load) at 40°C	6,000
			TV-3 (N.O only) 40°C	25,000

CSA Certified: (File No. LR31928)

Model	Contact form	Coil ratings	Contact ratings	Number of test operations
G5LE	SPDT-NO (1a) SPDT (1c)	5 to 24 VDC	10 A, 250 VAC (general use) at 40°C 8 A, 30 VDC (resistive load) at 40°C	6,000
			TV-3 (N.O only) 40°C	25,000

VDE EN/IEC Certified: (Certificate No. 6850)

Model	Contact form	Coil ratings	Contact ratings	Number of test operations
G5LE	SPDT-NO (1a) SPDT (1c)	5, 12, 24 VDC	10 A, 250 VAC (cosφ = 1) 85°C	50,000

TÜV EN/IEC Certified: △ (Certificate No. R50158258)

Model	Contact form	Coil ratings	Contact ratings	Number of test operations
			2.5 A, 250 VAC (cosφ = 0.4) 85°C	100,000
G5LE	SPDT-NO (1a) SPDT (1c)	5, 12, 24 VDC	10 A, 250 VAC (resistive load) at 85°C	50,000
			8 A, 30 VAC (resistive load) at 40°C	100,000

■Precautions

• Please refer to "PCB Relays Common Precautions" for correct use.

• Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product. • Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

Contact: www.omron.com/ecb

Note: Do not use this document to operate the Unit.

OMRON Corporation
Electronic and Mechanical Components Company

Cat. No. K100-E1-07 1116(0207)(O)