G5RL
PCB Power Relay

Low-profile Relay with Various Models

- Low profile: 15.7 mm in height.
- Creepage distance 8mm between coil and contacts
- 10 kV Impulse withstand voltage
- Models with AC coil available.
- High-Inrush model available (Inrush peak currents up to 100 A)
- Low Noise models available (Approx. 10 to 20 dB less sound pressure than standard G5RL-Series Relays)
- TV8 Rating models available (TV8 for UL standard)

RoHS Compliant

■Model Number Legend

G5RL-□□-□-□
1 2 3 4

1. Number of poles
1: 1-pole

2. Contact Form
None: SPDT (1c)
A : SPST-NO (1a)

3. Classification
None: Standard
E : High-capacity

4. Additional Models
None: Standard
HR: High-inrush
LN: Low Noise
TV8: TV8 rating

■Application Examples

- Housing equipments
- Audio-visual products
- Office automation machines
- Air-conditioners
- Lighting

■Ordering Information

Classification	Terminal Shape	Contact form	Enclosure rating	Model	Rated coil voltage	Minimum packing unit
Standard	PCB terminals	SPST-NO (1a)	Flux protection	**G5RL-1A-LN**	5VDC, 12VDC, 24VDC	100 pcs/tray
High-capacity				**G5RL-1A-TV8**	5VDC, 12VDC, 24VDC, 48VDC	
				G5RL-1A-E-HR	5VDC, 12VDC, 24VDC, 48VDC	
				G5RL-1A-E-LN	5VDC, 12VDC, 24VDC	
				G5RL-1A-E-TV8	5VDC, 12VDC, 24VDC, 48VDC	
		SPDT (1c)		**G5RL-1-E**	24VAC, 100VAC, 115VAC/120VAC, 200VAC, 230VAC/240VAC	
				G5RL-1-E-HR	5VDC, 12VDC, 24VDC, 48VDC	

Note. When ordering, add the rated coil voltage to the model number.
Example: G5RL-1A-LN 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 □□ VDC.

■Ratings

●Coil

Low Noise Models: G5RL-1A(-E)-LN

Rated Voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Must operate voltage (V)	Must release voltage (V)	Max voltage (V)	Power consumption (mW)
			% of rated voltage			
5	106	47.2	70% max.	10% min.	110%	Approx. 530
12	44.2	272				
24	22.1	1,086				

Note 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±10%.
2. Be sure to use a diode for surge absorption for the coil.
3. The operating characteristics are measured at a coil temperature of 23°C.
4. The “Max. voltage” is the maximum voltage that can be applied to the relay coil.

High-Inrush Models: G5RL-1(A)-E-HR, G5RL-1A(-E)-TV8

Rated Voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Must operate voltage (V)	Must release voltage (V)	Max. voltage (V)	Power consumption (mW)
			% of rated voltage			
5	80	62.5	70% max.	10% min.	130%	Approx. 400
12	33.3	360				
24	16.7	1,440				
48	8.96	5,358				Approx. 430

Note 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of ±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.

Models with AC Coil: G5RL-1-E

Rated Voltage (VAC)	Rated current at 50Hz (mA)	Rated current at 60Hz (mA)	Coil resistance (Ω)	Must operate voltage (V)	Must release voltage (V)	Max. voltage (V)	Power consumption (mW)
				% of rated voltage			
24	31.3	28.3	443	75% max.	15% min.	110%	Approx. 750
100	7.5	6.88	8,220				
115/120	5.85/6.25	5.35/5.70	11,600				
200	3.75	3.45	33,000				
230/240	3.00/3.13	2.76/2.88	47,600				

Note 1. The rated current tolerance is +15%/-20%.
2. The operating characteristics are measured at a coil temperature of 23°C.
3. Coil resistances are provided as reference values.
4. The “Max. voltage” is the maximum voltage that can be applied to the relay coil.

●Contacts

Low Noise Models: G5RL-1A(-E)-LN

Load	Resistive load	
	Standard	High-capacity
Contact form	SPST-NO (1a)	
Contact Type	Single	
Contact material	Ag Alloy	
Rated load	12 A at 250 VAC 12 A at 24 VDC	16 A at 250 VAC 16 A at 24 VDC
Rated carry current	12 A	16 A
Max. switching voltage	250 VAC, 24 VDC	
Max. switching current	12 A	16 A

High-Inrush Models: G5RL-1(A)-E-HR, G5RL-1A(-E)-TV8

Load	Resistive load		
	Standard	High-capacity	
Contact form	SPST-NO (1a)	SPST-NO (1a)	SPDT (1c)
Contact Type	Single		
Contact material	Ag Alloy		
Rated load	12 A at 250 VAC 12 A at 24 VDC	16 A at 250 VAC 16 A at 24 VDC	16 A at 250 VAC, 24VDC (NO) 5 A at 250 VAC, 24 VDC (NC)
Rated carry current	12 A	16 A	16 A (NO), 5 A (NC)
Max. switching voltage	250 VAC, 24 VDC		
Max. switching current	12 A	16 A	16 A (NO), 5 A (NC)

Models with AC Coil: G5RL-1-E

Load	Resistive load
	High-capacity
Contact form	SPDT (1c)
Contact Type	Single
Contact material	Ag Alloy
Rated load	16 A at 250 VAC, 24 VDC (NO) 5 A at 250 VAC, 24 VDC (NC)
Rated carry current	16 A (NO), 5 A (NC)
Max. switching voltage	250 VAC, 24 VDC
Max. switching current	16 A (NO), 5 A (NC)