

# Low Signal Relay

**G5V-1** 

- High sensitivity: 150 mW nominal power consumption with 96 mW pickup power
- Small size at 10 H x 7.5 W x 12.5 L mm (0.394 H x 0.295 W x 0.492 L in)
- Conforms to FCC part 68 voltage surge
- Fully-sealed construction
- Ideal for use in telecommunications, security, and computer/peripheral equipment







# Ordering Information -

To Order: Select the part number and add the desired coil voltage rating (e.g., G5V-1-DC12).

Туре	Contact form	Contact type	Construction	Part number
Standard	SPDT	Single crossbar	Fully-sealed	G5V-1
Special pickup				G5V-1-2

## Specifications \_\_\_\_\_

## ■ CONTACT DATA

Load	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4, L/R = 7ms)			
Rated load	0.50 A at 125 VAC, 1 A 24 VD	0.50 A at 125 VAC, 1 A 24 VDC			
Contact material	Ag (Au clad)	Ag (Au clad)			
Carry current	2 A				
Max. operating voltage	125 VAC, 60 VDC				
Max. operating current	1 A				
Max. switching capacity	62.50 VA, 30W				
Min. permissible load	1 mA, 5 VDC				

## **■ COIL DATA**

Rated voltage	age current resistance		Coil inductance (Ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption
(VDC)	(mA)	(Ω)	Armature OFF	Armature ON	% of rated	voltage		(mW)
3	50	60	0.11	0.05	80%	10% min.	200%	Approx. 150
5	30	166.70	0.29	0.15	(standard)	at 55°C (131°F)		
6	25	240	0.41	0.20			(131°F)	
9	16.70	540	0.93	0.45	70%		160%	
12	12.50	960	1.63	0.85	(special)		at 70°C	
24	6.30	3,840	6.61	3.48		(158°F)		

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with a tolerance of ±10%.

<sup>2.</sup> The operating characteristics are measured at a coil temperature of 23°C (73°F).

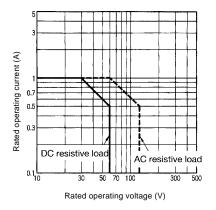
## **■ CHARACTERISTICS**

	100 m $Ω$ max.		
	5 ms max. (mean value: approx. 2.50 ms)		
	5 ms max. (mean value: approx. 0.90 ms)		
	5 ms max. (mean value: approx. 0.17 ms)		
Mechanical	36,000 operations/hour		
Electrical	1,800 operations/hour		
	1,000 MΩ min. (at 500 VDC)		
	1,000 VAC, 50/60 Hz for 1 minute between coil and contacts		
	400 VAC, 50/60 Hz for 1 minute between contacts of same polarity		
е	1,500 V 10 X 160 μs (conforms to FCC Part 68)		
Mechanical durability	10 to 55 Hz, 3.30 mm (0.13 in) double amplitude		
Malfunction durability			
Mechanical durability	1,000 m/s <sup>2</sup> (approx. 100 G)		
Malfunction durability	100 m/s <sup>2</sup> (approx. 10 G)		
	-30°C to 70°C (-22° to 158°F)		
	35% to 85% RH		
Mechanical	5 million operations min. (at 36,000 operations/hour)		
Electrical	See "Characteristic Data"		
	2.20 g (0.08 oz)		
	e  Mechanical durability  Malfunction durability  Mechanical durability  Malfunction durability  Malfunction durability		

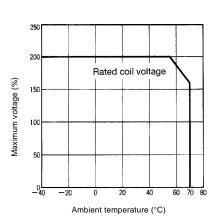
Note: Data shown are of initial value.

## **■ CHARACTERISTIC DATA**

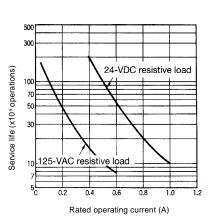
## Maximum switching capacity



# Ambient temperature vs. maximum voltage (reference only)



## **Electrical service life**

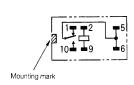


## **Dimensions**

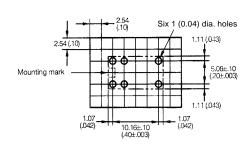
Unit: mm (inch)

# 7.5 (295) max. (492) max. (394) (019) max. (197)

#### Terminal arrangement/ Internal connections (bottom view)



# Mounting holes (bottom view)



Note: 1. Z and [ -- ] indicate mounting orientation marks.

2. A tolerance of  $\pm 0.10$  (0.004) applies to the above dimensions.

## **■** APPROVALS

UL (File No. E41515)/CSA (File No. LR24825)

Туре	Contact form	Coil rating	Contact ratings
G5V-1	SPDT	3 to 24 VDC	0.5 A, 125 VAC
G5V-1-2			0.3 A, 60 VDC
			1.0 A, 30 VDC

Note: In the interest of product improvement, specifications are subject to change.