

# General Purpose Relay

G4B

- Miniature relay ideal for switching motor load, lamp load, heater, etc.
- Creepage distance of more than 2.03 mm (0.08 in).
- Upper mounting bracket type for easy wiring and mounting





# Ordering Information \_\_\_\_\_

To Order: Select the part number from the available types chart and add the desired coil voltage rating, (e.g., G4B-112T-US-DC6).

Туре	Load contact terminal	Coil terminal	Contact form	Part number
Standard	Quick connect #250	Quick connect #110	SPST-NO	G4B-112T-US
			SPDT	G4B-112T-C-US
		Quick connect #187	SPST-NO	G4B-112T1-US
			SPDT	G4B-112T1-C-US
		PC board	SPST-NO	G4B-112TP-US
			SPDT	G4B-112TP-C-US
High capacity PC board		PC board	SPST-NO	G4B-112TP-FD-US-RP
			SPDT	G4B-112TP-FD-C-US-RP
		Quick connect #187	SPST-NO	G4B-112T1-FD-US-RP
			SPDT	G4B-112T1-FD-C-US-RP

Note: 1. Class "B" insulation available. For information consult your OMRON representative.

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

## **■ CONTACT DATA**

Туре	Standard	Standard		High capacity	
Load	Resistive (p.f.=1)	Inductive (p.f.=0.40) (L/R=7ms)	Resistive (p.f.=1)	Inductive (p.f.=0.40) (L/R=7ms)	
Rated load	220 VAC 15A 220 VAC 10A 24 VDC 15A 24 VDC 7A		220 VAC 25A 24 VDC 25A	220 VAC 20A 24 VDC 15A	
Contact material	AgCdO	AgCdO		AgInSn	
Carry current	20A		25A		
Max. operating voltage	250 VAC, 125 VDC	_	250 VAC, 125 VDC		
Max. operating current	20 A	_	25A		
Max. switching capacity	3,300VA, 360W	2,200VA, 170W	5,500VA, 600W		
Min. permissible load	100 mA, 5 VDC				

<sup>2.</sup> High capacity types are also available with #110 connect coil terminals.

## **■ COIL DATA**

## AC

Rated voltage	Rated curren (mA)	ıt	Coil resistance	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption
(V)	50Hz	60Hz	$(\Omega)$	% of rated vo	ltage		(VA,W)
6	254	217	I —	80% max.	30% min.	110% max.	Approx.1.30 VA
12	126.50	108					
24	63	54					
50	30.50	26					
100	15	13					
120	12.60	10.80					
240	6.30	5.40					

### DC

Rated voltage	Rated current	Coil resistance	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption
(V)	(mA)	$(\Omega)$	% of rated vo	ltage		(VA,W)
6	200	30	80% max.	10% min.	110% max.	Approx. 1.20 W
12	89	135				
24	50	480				
48	25	1,920				
100	12	8,300				
110	9	12,300				

Note: The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with tolerances of  $\pm$ 10% for DC rated current and  $\pm$ 15%,  $\pm$ 20% for AC rated current, and  $\pm$ 15% for rated coil resistance.

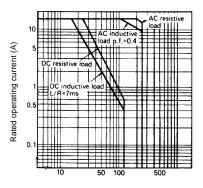
## **■** CHARACTERISTICS

Contact resistance		30 m $Ω$ max.		
Operate time		20 ms max.		
Release time		20 ms max.		
Operating frequency Mechanical		1,800 operations/hour		
		1,800 operations/hour (under rated load)		
Insulation resistance		100 M $\Omega$ min (at 500 VDC)		
Dielectric strength		2,000 VAC 50/60 Hz for 1 minute (1,000 VAC between non-continuous contacts)		
Vibration	Mechanical durability	10 to 55 Hz, 1.50 mm (0.06 in) double amplitude		
	Malfunction durability	10 to 55 Hz, 1.50 mm (0.06 in) double amplitude		
Shock	Mechanical durability	Approx. 100 G		
	Malfunction durability	Approx. 20 G		
Ambient temperature		-10° to 55°C (14° to 131°F)		
Humidity		35% to 85% RH		
Service life Mechanical		10 million operations min. (at 18,000 operations/hour)		
	Electrical	See "Characteristic Data"		
Weight		Approx. 44 g (1.55 oz)		

Note: Data shown are of initial value.

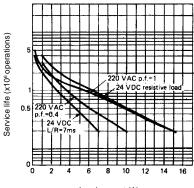
## **■ CHARACTERISTIC DATA**

# Standard Maximum switching capacity



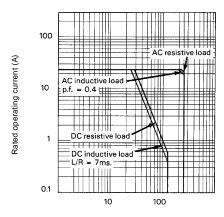
Rated operating voltage (V)

## **Electrical service life**



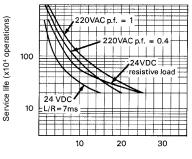
Load current (A)

High Capacity
Maximum switching capacity



Rated operating voltage (V)

## **Electrical service life**



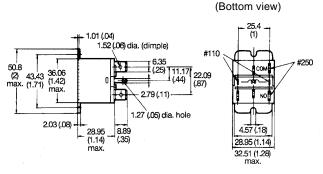
Load current (A)

## Dimensions.

Unit: mm (inch)

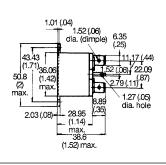
## **■ RELAYS**

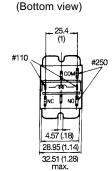
## G4B-112T-US



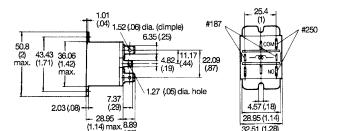
### G4B-112T-C-US

OMRON





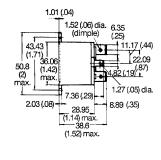
G4B-112T1-US

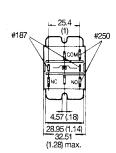


(Bottom view)

32.51 (1.28) max.

G4B-112T1-C-US

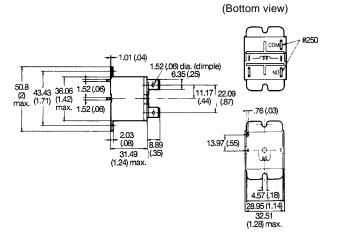




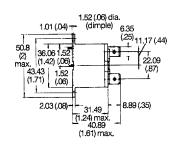
(Bottom view)

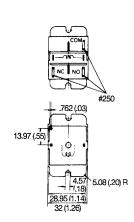
(Bottom view)

G4B-112TP-US



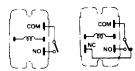
G4B-112TP-C-US





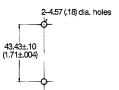
G4B-112T-US, G4B-112T-C-US G4B-112T1-US, G4B-112T1-C-US

Terminal layout/ Internal connection (Bottom view)



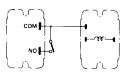
G4B-112T(-C)-US G4B-112T1(-C)-US

Mounting holes (Bottom view)

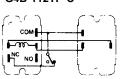


**G4B-112TP-US** 

Terminal layout/ Internal connection (Bottom view) (Top view)

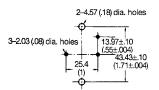


G4B-112TP-C



G4B-112TP(-C)-US

Mounting holes (Bottom view)



Note: Recommended panel thickness is 1.01 to 2.03 mm (0.04 to 0.08 in).

## **■** APPROVALS

#### Standard

UL (File No. E41643)

Туре	Contact form	Coil ratings	Contact ratings
G4B	SPST-NO	6 to 120 VAC	15 A, 28 VDC (Resistive)
	SPDT	6 to 100 VDC	15 A, 120 VAC (Inductive)
			10A, 240 VAC (Inductive)
			1 HP, 120 VAC (HP rating)
			TV-5 AC
			TV rating

### CSA (File No. LR31928)

Туре	Contact form	Coil ratings	Contact ratings
G4B	SPST-NO	6 to 120 VAC	15 A, 28 VDC (Resistive)
	SPDT	6 to 120 VDC	10A, 120 VAC (Inductive)
			1/2 HP, 120 VAC (HP rating)

## **High Capacity**

## UL (File No. 41643)

Туре	Contact form	Coil ratings	Contact ratings
G4B	SPST-NO	6 to 120 VAC	25 A, 250 VAC (General purpose)
	SPTD	6 to 100 VDC	2 HP, 250 VAC

Note: 1. The rated values approved by each of the safety standards may be different from the performance characteristics individually defined in this catalog.

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

# **OMRON**

**OMRON ELECTRONICS, INC.** 

One East Commerce Drive Schaumburg, IL 60173

1-800-55-OMRON

**OMRON CANADA, INC.** 

885 Milner Avenue Scarborough, Ontario M1B 5V8 **416-286-6465** 

Cat. No. GC RLY6