

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).

Type	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	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.
2. High capacity types are also available with #110 connect coil terminals.

Specifications

CONTACT DATA

Type	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 24 VDC 15A	220 VAC 10A 24 VDC 7A	220 VAC 25A 24 VDC 25A	220 VAC 20A 24 VDC 15A
Contact material	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			

■ COIL DATA

AC

Rated voltage (V)	Rated current (mA)		Coil resistance (Ω)	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA,W)
	50Hz	60Hz		% of rated voltage			
6	254	217	—	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 (V)	Rated current (mA)	Coil resistance (Ω)	Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (VA,W)
			% of rated voltage			
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 ±10% for DC rated current and +15%, -20% for AC rated current, and ±15% for rated coil resistance.

■ CHARACTERISTICS

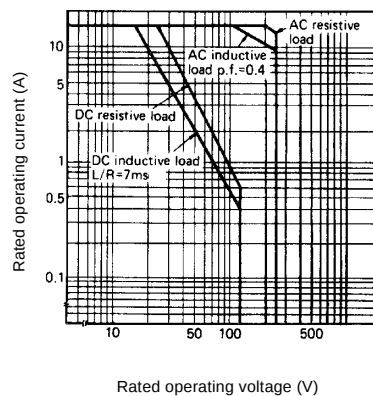
Contact resistance		30 mΩ max.
Operate time		20 ms max.
Release time		20 ms max.
Operating frequency	Mechanical	1,800 operations/hour
		1,800 operations/hour (under rated load)
Insulation resistance		100 MΩ min (at 500 VDC)
Dielectric strength		2,000 VAC 50/60 Hz for 1 minute (1,000 VAC between non-continuous 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.

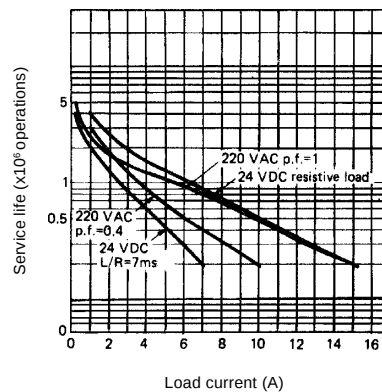
CHARACTERISTIC DATA

Standard

Maximum switching capacity

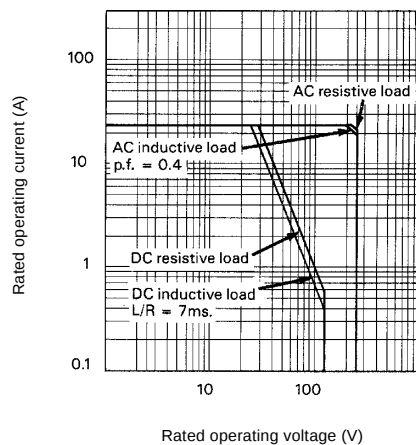


Electrical service life

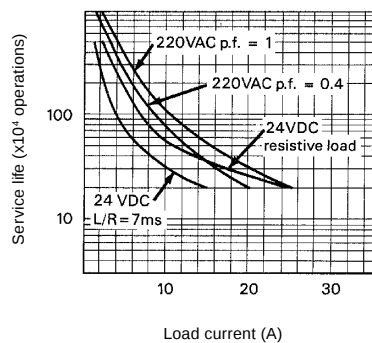


High Capacity

Maximum switching capacity



Electrical service life



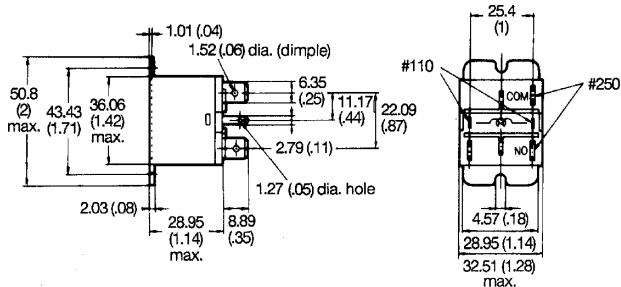
Dimensions

Unit: mm (inch)

RELAYS

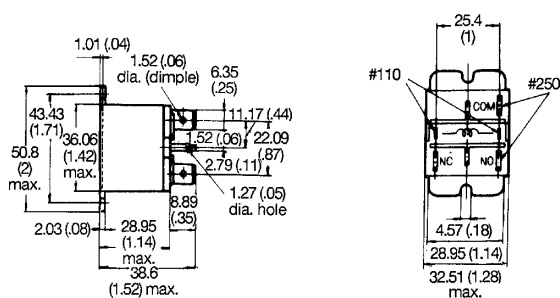
G4B-112T-US

(Bottom view)



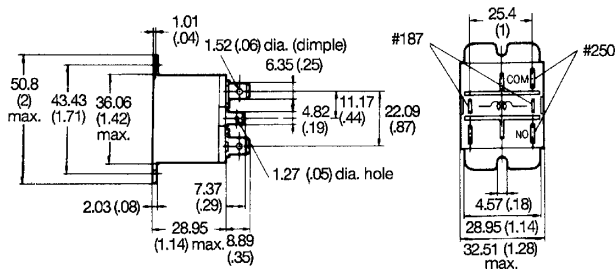
G4B-112T-C-US

(Bottom view)



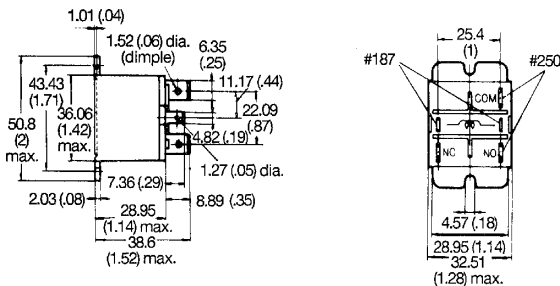
G4B-112T1-US

(Bottom view)



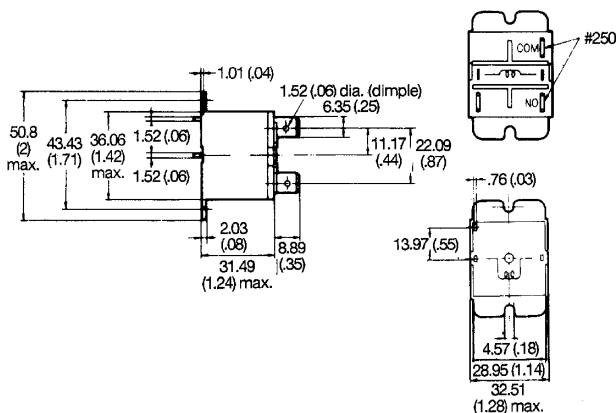
G4B-112T1-C-US

(Bottom view)



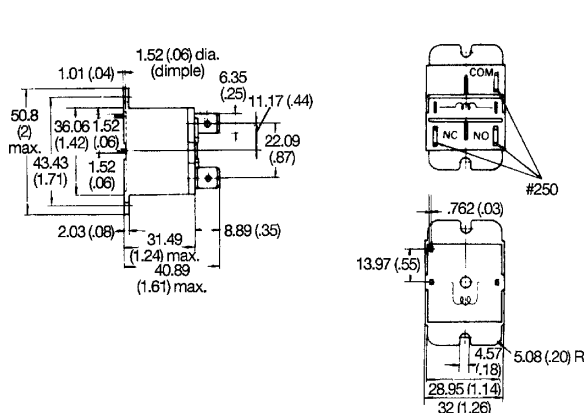
G4B-112TP-US

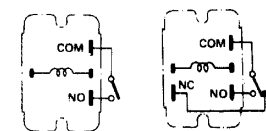
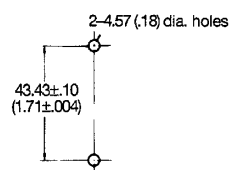
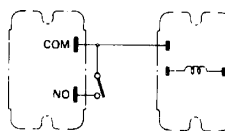
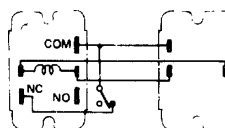
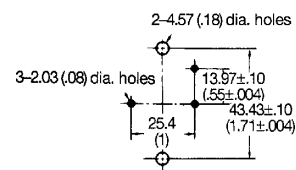
(Bottom view)



G4B-112TP-C-US

(Bottom view)



**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)

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

CSA (File No. LR31928)

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

High Capacity
UL (File No. 41643)

Type	Contact form	Coil ratings	Contact ratings
G4B	SPST-NO SPDT	6 to 120 VAC 6 to 100 VDC	25 A, 250 VAC (General purpose)
			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.

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[RP AC240](#)