

## 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)<br>(L/R=7ms) | Resistive (p.f.=1)        | Inductive (p.f.=0.40)<br>(L/R=7ms) |
| Rated load              | 220 VAC 15A<br>24 VDC 15A | 220 VAC 10A<br>24 VDC 7A           | 220 VAC 25A<br>24 VDC 25A | 220 VAC 20A<br>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<br>(V) | Rated current<br>(mA) |       | Coil<br>resistance<br>(Ω) | Pick-up<br>voltage | Dropout<br>voltage | Maximum<br>voltage | Power<br>consumption<br>(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<br>(V) | Rated current<br>(mA) | Coil resistance<br>(Ω) | Pick-up voltage    | Dropout voltage | Maximum voltage | Power consumption<br>(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

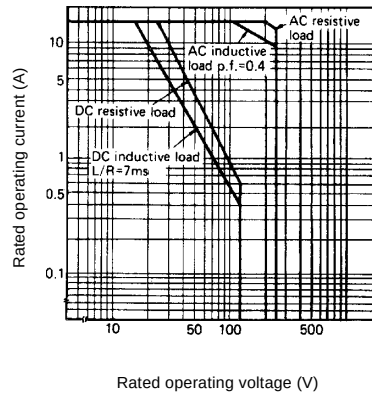
|                       |                        |                                                                             |
|-----------------------|------------------------|-----------------------------------------------------------------------------|
| Contact resistance    |                        | 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.

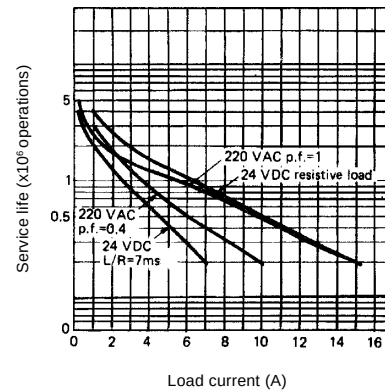
## CHARACTERISTIC DATA

### Standard

#### Maximum switching capacity

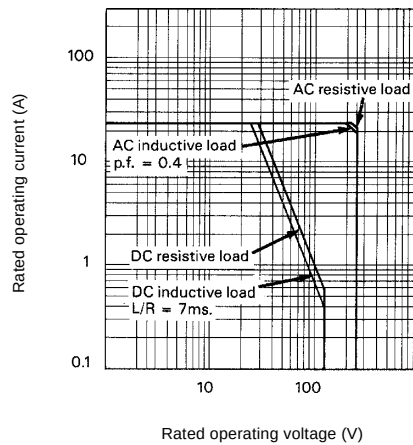


#### Electrical service life

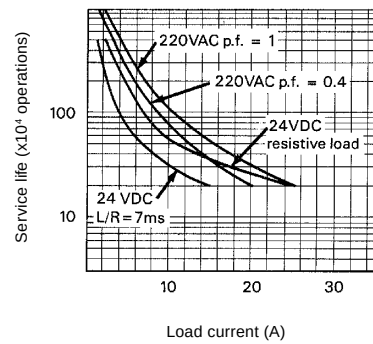


### High Capacity

#### Maximum switching capacity



#### Electrical service life



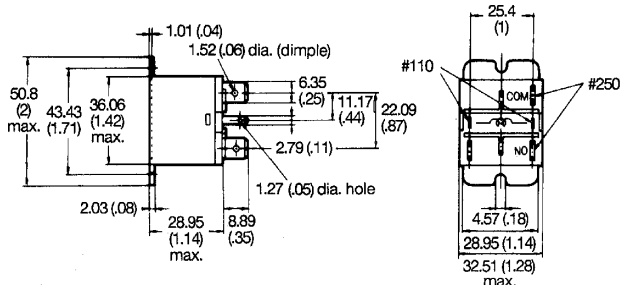
# Dimensions

Unit: mm (inch)

## RELAYS

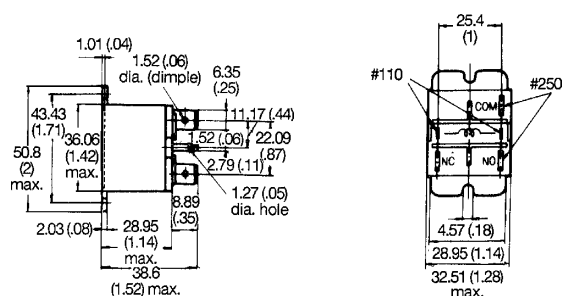
### G4B-112T-US

(Bottom view)



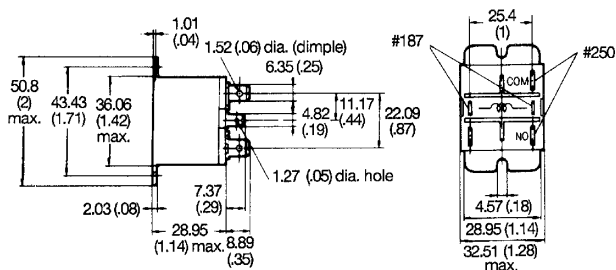
### G4B-112T-C-US

(Bottom view)



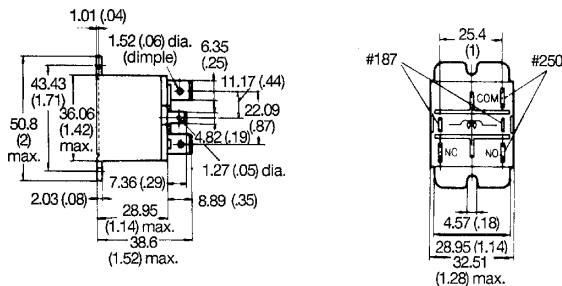
### G4B-112T1-US

(Bottom view)



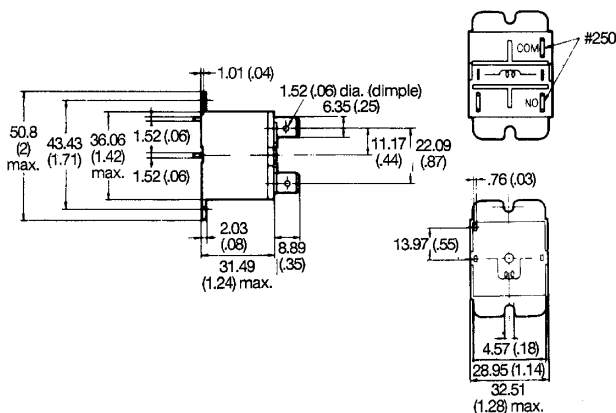
### G4B-112T1-C-US

(Bottom view)



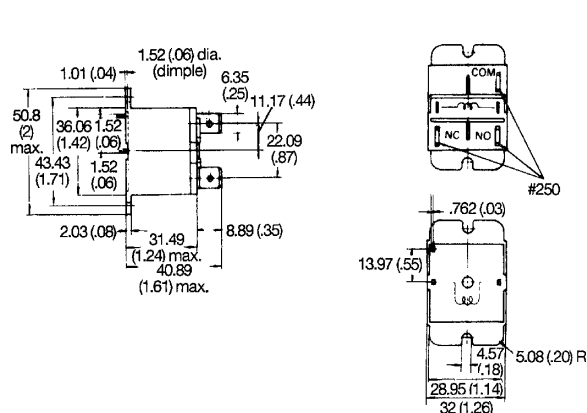
### G4B-112TP-US

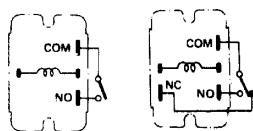
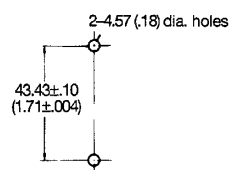
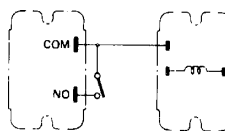
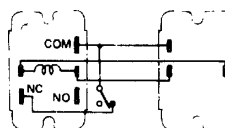
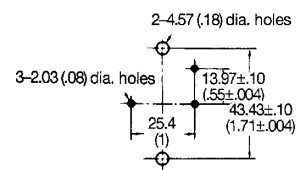
(Bottom view)



### 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<br>SPDT | 6 to 120 VAC<br>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<br>SPDT | 6 to 120 VAC<br>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<br>SPDT | 6 to 120 VAC<br>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.

**OMRON**

Cat. No. GC RLY6

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Specifications subject to change without notice.

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