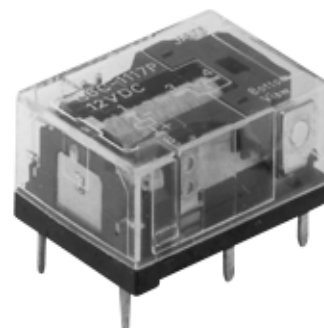


- Subminiature 20.07 L x 14.99 W x 9.91 H mm  
(0.79 L x 0.59 W x 0.39 H in)
- Low power consumption (200 mW)
- Semi-sealed and sealed types available
- Unique moving magnet armature (Moving Loop System) reduces relay size, magnetic interference, and contact bounce time
- Single and double-winding latching types available
- High sensitivity in a compact package
- Long life assured by high contact pressure



## Ordering Information

To Order: Select the part number and add the desired coil voltage rating (e.g., G6C-1117P-US-DC6).

Type	Contact form	Construction	Part number
Non-latching	SPST-NO	Sealed	<b>G6C-1114P-US</b>
	SPST-NO + SPST-NC		<b>G6C-2114P-US</b>
	SPST-NO	Semi-sealed	<b>G6C-1117P-US</b>
	SPST-NO + SPST-NC		<b>G6C-2117P-US</b>
Single-winding latching contact	SPST-NO	Sealed	<b>G6CU-1114P-US</b>
	SPST-NO + SPST-NC		<b>G6CU-2114P-US</b>
	SPST-NO	Semi-sealed	<b>G6CU-1117P-US</b>
	SPST-NO + SPST-NC		<b>G6CU-2117P-US</b>
Dual-winding latching contact	SPST-NO	Sealed	<b>G6CK-1114P-US</b>
	SPST-NO + SPST-NC		<b>G6CK-2114P-US</b>
	SPST-NO	Semi-sealed	<b>G6CK-1117P-US</b>
	SPST-NO + SPST-NC		<b>G6CK-2117P-US</b>

## ■ ACCESSORIES

### Back connecting sockets

Relay	Part number
G6C-1114P-US	<b>P6C-06P</b>
G6C-1117P-US	
G6C-2114P-US	
G6C-2117P-US	
G6CU-1114P-US	
G6CU-1117P-US	
G6CU-2114P-US	
G6CU-2117P-US	
G6CK-1114P-US	<b>P6C-08P</b>
G6CK-1117P-US	
G6CK-2114P-US	
G6CK-2117P-US	

# Specifications

## ■ CONTACT DATA

### Non-latching

Load	SPST-NO		SPST-NO + SPST-NC	
	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4) (L/R = 7 ms)	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4) (L/R = 7 ms)
Rated load	10 A at 250 VAC 10 A at 30 VDC	5 A at 250 VAC 5 A at 30 VDC	8 A at 250 VAC 8 A at 30 VDC	3.5 A at 250 VAC 3.5 A at 30 VDC
Contact material	AgCdO			
Carry current	10 A		8 A	
Max. operating voltage	380 VAC, 125 VDC			
Max. operating current	10 A		8 A	
Max. switching capacity	2,500 VA, 300 W	1,250 VA, 220 W	2,000 VA, 240 W	875 VA, 170 W
Min. permissible load	10 mA, 5 VDC			

### Latching

Load	SPST-NO		SPST-NO + SPST-NC	
	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4) (L/R = 7 ms)	Resistive load (p.f. = 1)	Inductive load (p.f. = 0.4) (L/R = 7 ms)
Rated load	10 A at 250 VAC 10 A at 30 VDC	5 A at 250 VAC 5 A at 30 VDC	8 A at 250 VAC 8 A at 30 VDC	3.5 A at 250 VAC 3.5 A at 30 VDC
Contact material	AgCdO			
Carry current	10 A		8 A	
Max. operating voltage	380 VAC, 125 VDC			
Max. operating current	10 A		8 A	3.5 A
Max. switching capacity	2,500 VA, 300 W	1,250 VA, 220 W	2,000 VA, 240 W	875 VA, 105 W
Min. permissible load	10 mA, 5 VDC			

## ■ COIL DATA

### Non-latching

Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Coil inductance (ref. value) (H)		Pick-up voltage  % of rated voltage	Dropout voltage  % of rated voltage	Maximum voltage  at 23°C (73°F) 130% max. at 70°C (158°F)	Power consumption (mW)
			Armature OFF	Armature ON				
3	66.70	45	0.078	0.067	70% max.	10% min.	160% max. at 23°C (73°F) 130% max. at 70°C (158°F)	Approx. 200
5	40	125	0.22	0.18				
6	33.30	180	0.36	0.29				
12	16.70	720	1.32	1.13				
24	8.30	2,880	4.96	4.19				

### Single-winding latching type

Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω)	Coil inductance (ref. value) (H)	Set pick-up voltage	Reset pick-up voltage	Maximum voltage	Power consumption (mW)
				% of rated voltage			
3	66.70	45	0.09	70% max.	70% min.	160% max. at 23°C (73°F)	Approx. 200
5	40	125	0.25			130% max. at 70°C (158°F)	
6	33.30	180	0.36				
12	16.70	720	1.75				
24	8.30	2,880	5.83				

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

## ■ COIL DATA

### Dual-winding latching type

Rated voltage (VDC)	Rated current (mA)	Coil resistance ( $\Omega$ )	Coil inductance (ref. value) (H)		Set pick-up voltage % of rated voltage	Reset pick-up voltage	Maximum voltage	Power consumption (mW)
			Set Coil	Reset Coil				
3	93.50	32.10	0.03	0.03	70% max.	70% max.	160% max. at 23°C (73°F) 110% max. at 70°C (158°F)	Approx. 280
5	56	89.30	0.07	0.08				
6	46.70	129	0.10	0.12				
12	23.30	514	0.37	0.47				
24	11.70	2,056	1.56	1.46				

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with a tolerance of  $\pm 10\%$ .  
 2. Operating characteristics are measured at a coil temperature of 23°C (73°F).  
 3. The minimum pulse width of the set and reset voltage is 20 ms.

## ■ CHARACTERISTICS

		Non-latching	Latching
Contact resistance		30 m $\Omega$ max.	
Operate (set) time		10 ms max. (mean value: approx. 5 ms)	
Release (reset) time		10 ms max. (mean value: approx. 2 ms)	
Bounce time	Operate	Approx. 3 ms	
	Release	Approx. 3 ms	
Operating frequency	Mechanical	18,000 operations/hour	
	Electrical	1,800 operations/hour (under rated load)	
Insulation resistance		1,000 M $\Omega$ min. (at 500 VDC)	
Dielectric strength		2,000 VAC, 50/60 Hz for 1 minute between coil and contacts, non-latching types	
		2,000 VAC, 50/60 Hz for 1 minute between contacts of different poles, non-latching	
		1,000 VAC, 50/60 Hz for 1 minute between contacts of same pole, non-latching	
		250 VAC, 50/60 Hz for 1 minute between set and reset coils, latching types	
Surge withstand voltage		4,500 V x 40 $\mu$ s (between coil and contacts, non-latching)	
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. 10 G	
Ambient temperature		-25 to 70°C (-13° to 158°F)	
Humidity		45 to 85% RH	
Service life	Mechanical	50 million operations min. (at operating frequency of 18,000 operations/hour)	
	Electrical	See "Characteristic Data"	
Weight		Approx. 5.6 g (0.20 oz)	

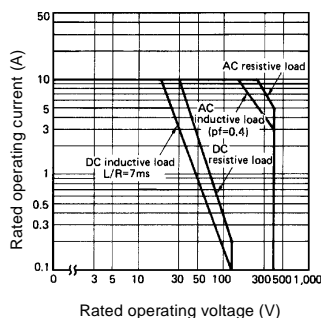
Note: Data shown are of initial value.

## CHARACTERISTIC DATA

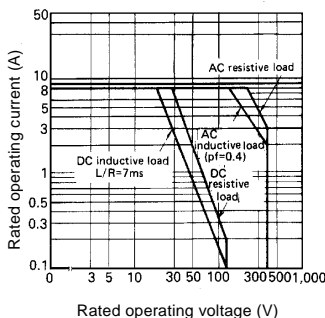
### Non-latching types

#### Maximum switching capacity

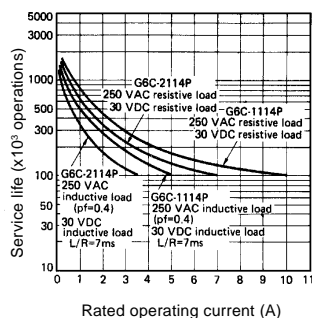
##### SPST-NO



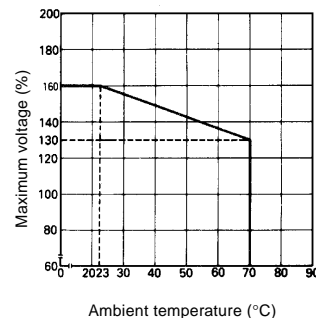
##### SPST-NO + SPST-NC



#### Electrical service life



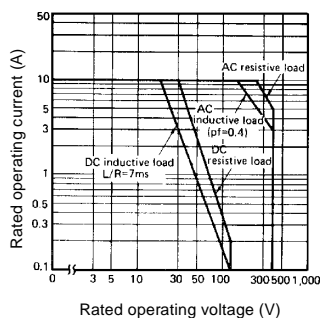
#### Ambient temperature vs. maximum voltage (reference only)



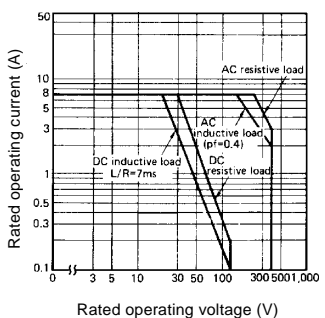
### Latching types

#### Maximum switching capacity

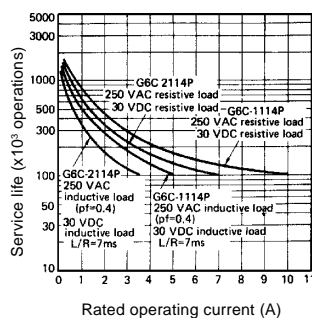
##### SPST-NO



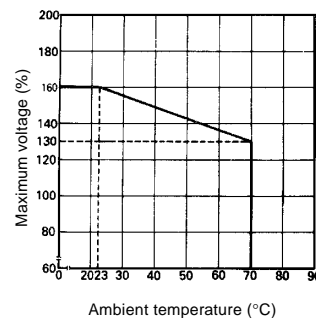
##### SPST-NO + SPST-NC



#### Electrical service life



#### Ambient temperature vs. maximum voltage (reference only)

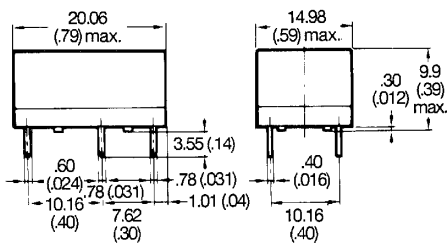


## Dimensions

Unit: mm (inch)

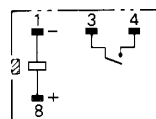
## NON-LATCHING RELAYS

### G6C-□117P-US



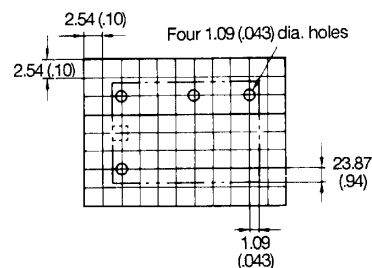
#### Terminal arrangement/ Internal connections (Bottom view)

### G6C-1117P-US, G6C-1114P-US



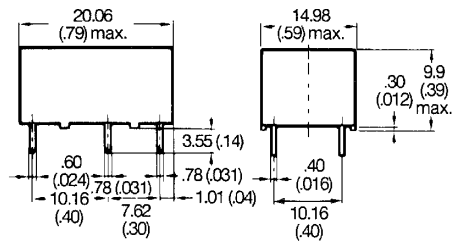
#### Mounting holes

[Bottom view, Tolerance:  $\pm 2.54$  (0.10)]



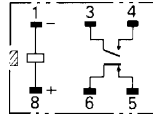
Note: and indicate mounting orientation marks.

## G6C-□114P-US

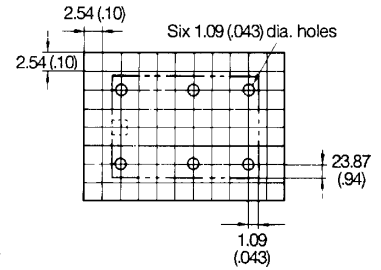


**Terminal arrangement/  
Internal connections**  
(Bottom view)

G6C-2117P-US, G6C-2114P-US

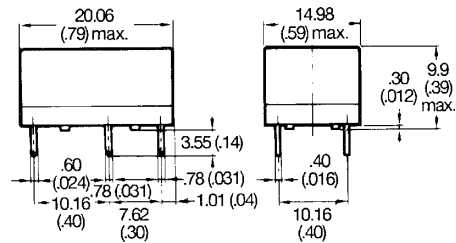


**Mounting holes**  
(Bottom view, Tolerance:  $\pm 2.54$  [0.10])

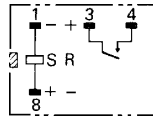


## ■ LATCHING RELAYS

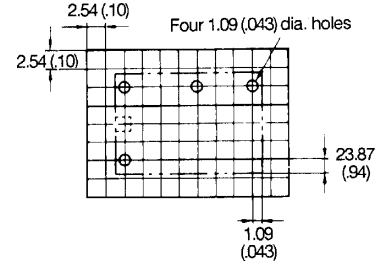
**Single winding types, 1-pole**  
G6CU-1117P-US, G6CU-1114P-US



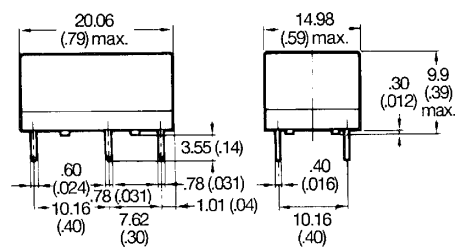
**Terminal arrangement/  
Internal connections**  
(Bottom view)



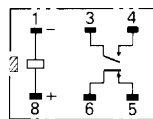
**Mounting holes**  
(Bottom view)



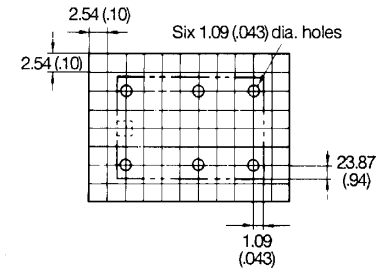
**Single winding types, 2-pole**  
G6CU-2117P-US, G6CU-2114P-US



**Terminal arrangement/  
Internal connections**  
(Bottom view)



**Mounting holes**  
(Bottom view)



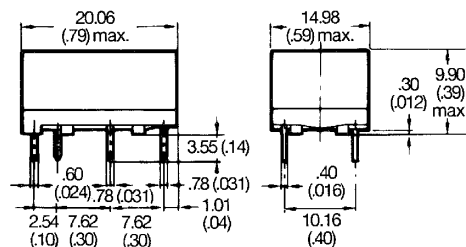
Note: and indicate mounting orientation marks.

Unit: mm (inch)

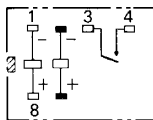
## ■ LATCHING RELAYS (continued)

### Double winding types, 1-pole

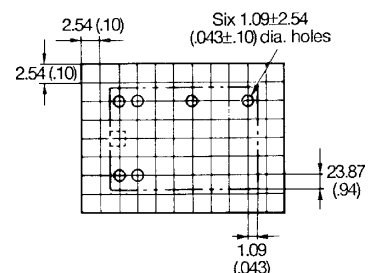
**G6CK-1117P-US, G6CK-1114P-US**



**Terminal arrangement/  
Internal connections  
(Bottom view)**

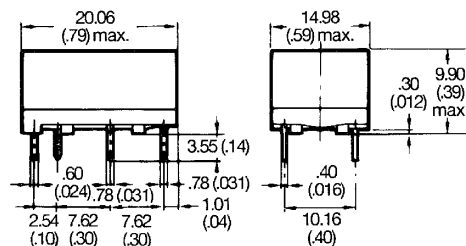


**Mounting holes**  
(Bottom view)

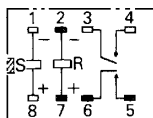


### Double winding types, 2-pole

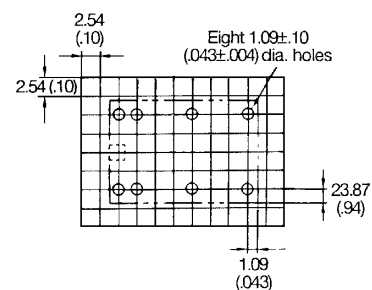
**G6CK-2117P-US, G6CK-2114P-US**



**Terminal arrangement/  
Internal connections**  
(Bottom view)

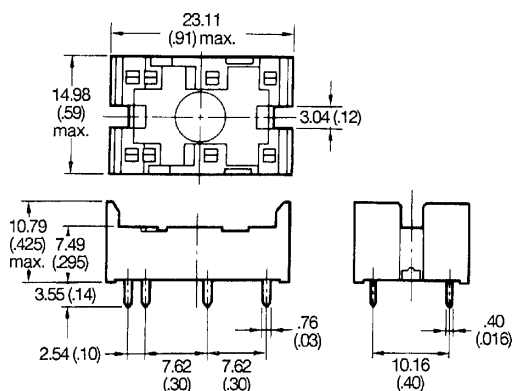


**Mounting holes**  
(Bottom view)

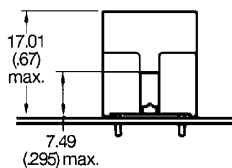


## ■ ACCESSORIES

### Connecting sockets – P6C-06P, P6C-08P

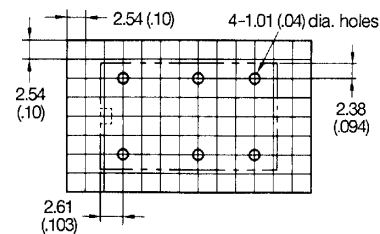


### Mounting height of relay width connecting socket

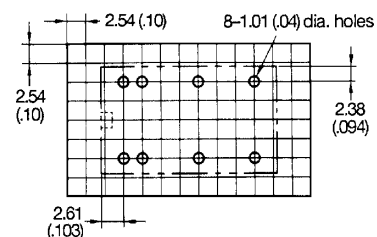


**Mounting holes**  
(Bottom view)

**P6C-06P**



**P6C-08P**



Note:  and  indicate mounting orientation marks.

## ■ APPROVALS

UL (File No. E41643)/ CSA (File No. LR31928)

Type	Contact Form	Coil Rating	Contact Ratings
G6C-1114P-US G6C-1117P-US	SPST-NO	3 to 60 VDC	10 A, 250 VAC (General purpose) 10 A, 30 VDC (Resistive) TV-5 1/4 HP, 125 VAC 1/4 HP, 250 VAC (Motor load) 1/3 HP, 250 VAC (Motor load) 600 WT, 120 VAC (Tungsten) 530 VA, 265 VAC, 2 A max. pilot duty 43.2 VA, 30 VDC, pilot duty 22 LRA, 3.6 FLA, 30 VDC
G6C-2114P-US G6C-2117P-US	SPST-NO + SPST-NC	3 to 60 VDC	8 A, 250 VAC (General purpose) 8 A, 30 VDC (Resistive) TV-5 1/4 HP, 125 VAC 1/4 HP, 250 VAC (Motor load) 600 WT, 120 VAC (Tungsten) 530 VA, 265 VAC, 2 A max. pilot duty 43.2 VA, 30 VDC, pilot duty 22 LRA, 3.6 FLA, 30 VDC
G6C(U/K)-1114P-US G6C(U/K)-1117P-US	SPST-NO	3 to 60 VDC	10 A, 250 VAC (General purpose) 10 A, 30 VDC (Resistive) 1/6 HP, 125 VAC (Motor load) TV-5 1/4 HP, 125 VAC 1/4 HP, 250 VAC (Motor load) 1/3 HP, 250 VAC (Motor load) 600 WT, 120 VAC (Tungsten)
G6C(U/K)-2114P-US G6C(U/K)-2117P-US	SPST-NO + SPST-NC	3 to 60 VDC	8 A, 250 VAC (General purpose) 8 A, 30 VDC (Resistive) 1/6 HP, 125 VAC (Motor load) TV-5 1/4 HP, 125 VAC 1/4 HP, 250 VAC (Motor load) 1/3 HP, 250 VAC (Motor load) 600 WT, 120 VAC (Tungsten)

VDE (File No. 2314)

Type	Contact Form	Coil Rating	Contact Ratings
G6C-1117P-VD G6C-1114P-VD	SPST-NO	DC3, 12, 24V	250 VAC 10 A (Resistive) 5 A (Inductive)
G6C-2117P-VD G6C-2114P-VD	SPST-NO + SPST-NC	DC3, 12, 24V	250 VAC 7 A (Resistive) 3.5 A (Inductive)

Note: 1. The rated values approved by each of the safety standards (e.g., UL and CSA) 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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Cat. No. GC RLY7

01/00

Specifications subject to change without notice.

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