# Power PCB Relay
# G2R

- Creepage distance of 8.0 mm (0.31) min. between coil and contact.
- Dual-winding latching type available.
- Plug-in and quick-connect terminals available.
- High sensitivity (360 mW) and high capacity (16 A) types available.
- Highly stable magnetic circuit for latching endurance and excellent resistance to vibration and shock.
- Safety-oriented design assuring high surge resistance: 10,000 V min. between coil and contacts.
- UL, CSA approved, marked with CE.


# Ordering Information

To order: Select the part number and add the desired coil voltage rating (e.g., G2R-14-*DC12*).

## ■ Non-Latching

### 1-Pole - PCB Types

| Type | Contact material | Contact form | Construction | Model |
|---|---|---|---|---|
| General purpose | AgCdO | SPDT | Semi-sealed | **G2R-1** |
| | | | Sealed | **G2R-14** |
| | | SPST-NO | Semi-sealed | **G2R-1A** |
| | | | Sealed | **G2R-1A4** |
| High-capacity | | SPDT | Semi-sealed | **G2R-1-E** |
| | | SPST-NO | | **G2R-1A-E** |
| High-sensitivity | | SPDT | | **G2R-1-H** |
| | | | Sealed | **G2R-14-H** |
| | | SPST-NO | Semi-sealed | **G2R-1A-H** |
| | | | Sealed | **G2R-1A4-H** |

### 1-Pole - Plug-in/Quick-connect Types

| Type | Contact material | Contact form | Terminal | Model |
|---|---|---|---|---|
| General purpose | AgCdO | SPDT | Plug-in | **G2R-1-S** |
| LED indicator | | | | **G2R-1-SN** |
| Surge suppression diode | | | | **G2R-1-SD** |
| LED indicator and surge suppression diode | | | | **G2R-1-SND** |
| Upper-mount bracket | | SPDT | Quick connect | **G2R-1-T** |
| | | SPST-NO | | **G2R-1A-T** |

**Note: 1.** AgInSn and gold plated contacts available.
**2.** Bifurcated button available.
**3.** For individual product agency approvals consult factory.
**4.** Class B coil insulation available.
**5.** Push to test button available on plug-in type. Consult Omron for details.
**6.** CE mark only on plug-in and quick connect types (G2R-□-S).

## 2-Pole - PCB Types

| Type | Contact material | Contact form | Construction | Model |
|---|---|---|---|---|
| General purpose | AgCdO | DPDT | Semi-sealed | **G2R-2** |
| | | | Sealed | **G2R-24** |
| | | DPST-NO | Semi-sealed | **G2R-2A** |
| | | | Sealed | **G2R-2A4** |
| High sensitivity | | DPDT | Semi-sealed | **G2R-2-H** |
| | | | Sealed | **G2R-24-H** |
| | | DPST-NO | Semi-sealed | **G2R-2A-H** |
| | | | Sealed | **G2R-2A4-H** |

## 2 Pole - Plug-in/Quick-connect Types

| Type | Contact material | Contact form | Terminal | Model |
|---|---|---|---|---|
| General purpose | AgCdO | DPDT | Plug-in | **G2R-2-S** |
| LED indicator | | | | **G2R-2-SN** |
| Surge suppression diode | | | | **G2R-2-SD** |
| Led indicator and surge suppression diode | | | | **G2R-2-SND** |

**Note: 1.** AgInSn and gold plated contacts available.
**2.** Bifurcated button available.
**3.** For individual product agency approvals consult factory.
**4.** Class B coil insulation available.
**5.** Push to test button available on plug-in type. Consult Omron for details.

# ■ Latching

| Type | Contact form | Construction | Model |
|---|---|---|---|
| Dual coil latching | SPDT | Semi-sealed | **G2RK-1** |
| | SPST-NO | | **G2RK-1A** |
| | DPDT | | **G2RK-2** |
| | DPST-NO | | **G2RK-2A** |

# ■ Accessories

## Track Mounted Sockets/Track

| Relay | Model | |
|---|---|---|
| | Socket | Mounting track |
| G2R-1-S□□ (1-pole) | **P2RF-05** | **PFP-100N or PFP-50N and PFP-M end plate PFP-S (optional spacer)** |
| | **P2RF-05-E** | |
| G2R-2-S□□ (2-pole) | **P2RF-08** | |
| | **P2RF-08-E** | |

**Note:** "-E" models are of finger-safe product construction. Round terminals cannot be used. Use Y-shaped terminals.

### Screwless Clamp Terminal Socket Ordering Information

| | 1-pole | 2-pole |
|---|---|---|
| Socket | P2RF-05-S | P2RF-08-S |
| Clip & release lever | P2CM-S | |
| Nameplate | R99-11 nameplate for MY | |
| Socket bridge | P2RM-SR, P2RM-SB | |

**Note:** For complete specifications see the data sheet at Omron's Knowledge center at www.knowledge.omron.com.

## Back Connecting Sockets/Plate

| Relay | Terminal | Model | |
|---|---|---|---|
| | | Socket | Socket mounting plate |
| G2R-1-S□□ (1-pole) | Solder | **P2R-05-A** | **P2R-P** |
| | PC | **P2R-05P** | |
| G2R-2-S□□ (2-pole) | Solder | **P2R-08A** | |
| | PC | **P2R-08P** | |

# Specifications

## ■ Contact Data

**Non-latching general purpose, plug-in, plug-in operation indicator self-contained, plug-in diode self-contained and upper-mount bracket.**

| Load | 1-pole type | | 2-pole type | |
|---|---|---|---|---|
| | 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<br>10 A at 30 VDC | 7.5 A at 250 VAC<br>5 A at 30 VDC | 5 A at 250 VAC<br>5 A at 30 VDC | 2 A at 250 VAC<br>3 A at 30 VDC |
| **Contact material** | AgCdO | | | |
| **Carry current** | 10 A | | 5 A | |
| **Max. operating voltage** | 380 VAC, 125 VDC | | | |
| **Max. operating current** | 10 A | | 5 A | |
| **Max. switching capacity** | 2,500 VA, 300 W | 1,875 VA, 150 W | 1,250 VA, 150 W | 500 VA, 90 W |
| **Min permissible load** | 100 mA, 5 VDC | | 10 mA, 5 VDC | |

**Non-latching high capacity 1-pole type**

| Load | Resistive load (p.f. = 1) | Inductive load (p.f. = 0.4) (L/R = 7 ms) |
|---|---|---|
| **Rated load** | 16 A at 250 VAC<br>16 A at 30 VDC | 8 A at 250 VAC<br>8 A at 30 VDC |
| **Contact material** | AgCdO | |
| **Carry current** | 16 A | |
| **Max. operating voltage** | 380 VAC, 125 VDC | |
| **Max. operating current** | 16 A | |
| **Max. switching capacity** | 4,000 VA, 480 W | 2,000 VA, 240 W |
| **Min. permissible load** | 100 mA, 5 VDC | |

**Non-latching high-sensitivity**

| Load | 1-pole type | | 2-pole type | |
|---|---|---|---|---|
| | 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** | 5 A at 250 VAC<br>5 A at 30 VDC | 2 A at 250 VAC<br>3 A at 30 VDC | 3 A at 250 VAC<br>3 A at 30 VDC | 1 A at 250 VAC<br>1.50 A at 30 VDC |
| **Contact material** | AgCdO | | | |
| **Carry current** | 5 A | | 3 A | |
| **Max. operating voltage** | 380 VAC, 125 VDC | | | |
| **Max. operating current** | 5 A | | 3 A | |
| **Max. switching capacity** | 1,250 VA, 150 W | 500 VA, 90 W | 750 VA, 90 W | 250 VA, 45 W |
| **Min permissible load** | 100 mA, 5 VDC | | 10 mA, 5 VDC | |

### Latching

| Load | 1-pole type | | 2-pole type | |
|---|---|---|---|---|
| | 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** | 5 A at 250 VAC<br>5 A at 30 VDC | 3.50 A at 250 VAC<br>2.50 A at 30 VDC | 3 A at 250 VAC<br>3 A at 30 VDC | 1.50 A at 250 VAC<br>2 A at 30 VDC |
| **Contact material** | AgCdO | | | |
| **Carry current** | 5 A | | 3 A | |
| **Max. operating voltage** | 380 VAC, 125 VDC | | | |
| **Max. operating current** | 5 A | | 3 A | |
| **Max. switching capacity** | 1,250 VA, 150 W | 875 VA, 75 W | 750 VA, 90 W | 375 VA, 60 W |
| **Min permissible load** | 100 mA, 5 VDC | | 10 mA, 5 VDC | |

**Note: 1.** P standard: $\lambda_{50} = 0.10 \times 10^{-6}$ operation.

**2.** AgInSn contacts available.

**3.** For individual product agency approvals consult factory.

## ■ Coil Data

### Non-latching DC coil

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Coil inductance (ref. value) (H) | | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---|---|---|---|---|---|---|---|---|
| | | | Armature OFF | Armature ON | % of rated voltage | | | |
| 3 | 176 | 17 | 0.07 | 0.14 | 70% max. | 15% min. | 110% max. at 70°C (158°F) | Approx. 530 |
| 5 | 106 | 47 | 0.20 | 0.39 | | | | |
| 6 | 88.20 | 68 | 0.28 | 0.55 | | | | |
| 12 | 43.60 | 275 | 1.15 | 2.29 | | | | |
| 24 | 21.80 | 1,100 | 4.27 | 8.55 | | | | |
| 48 | 11.50 | 4,170 | 13.86 | 22.71 | | | | |
| 100 | 5.30 | 18,860 | 67.20 | 93.20 | | | | |
| 110 | 4.80 | 22,900 | 81.50 | 110.60 | | | | |

### Non-latching AC coil

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Coil inductance (ref. value) (H) | | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---|---|---|---|---|---|---|---|---|
| | | | Armature OFF | Armature ON | % of rated voltage | | | |
| 6 | 150 | 16 | 0.05 | 0.10 | 80% max. | 30% min. | 110% max. at 70°C (158°F) | Approx. 0.9 |
| 12 | 75 | 65 | 0.19 | 0.39 | | | | |
| 24 | 37.50 | 260 | 0.81 | 1.55 | | | | |
| 50 | 18 | 1,130 | 3.25 | 6.73 | | | | |
| 110 | 10.60 | 4,600 | 13.34 | 26.84 | | | | |
| 120 | 7.50 | 6,500 | 21 | 42 | | | | |
| 220 | 5.30 | 22,000 | 51.30 | 102 | | | | |
| 240 | 3.80 | 30,000 | 65.50 | 131 | | | | |

### Non-latching high-sensitivity DC coil

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Coil inductance (ref. value) (H) | | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---|---|---|---|---|---|---|---|---|
| | | | Armature OFF | Armature ON | % of rated voltage | | | |
| 3 | 120 | 25 | 0.13 | 0.26 | 70% max. | 15% min. | 110% max. at 70°C (158°F) | Approx. 360 |
| 5 | 71.40 | 70 | 0.37 | 0.75 | | | | |
| 6 | 60 | 100 | 0.63 | 1.07 | | | | |
| 12 | 30 | 400 | 2.14 | 4.27 | | | | |
| 24 | 15 | 1,600 | 7.80 | 15.60 | | | | |
| 48 | 7.50 | 6,400 | 31.20 | 62.40 | | | | |

**Latching dual coil type - Set coil**

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Coil inductance (ref. value) (H) | | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---|---|---|---|---|---|---|---|---|
| | | | Armature OFF | Armature ON | % of rated voltage | | | |
| 3 | 227 | 10.80 | 0.026 | 0.052 | 70% max. | 70% max. | 110% max. at 70°C (158°F) | Approx. 850 |
| 5 | 167 | 30 | 0.073 | 0.146 | | | | |
| 6 | 138 | 43.50 | 0.104 | 0.208 | | | | |
| 12 | 70.60 | 170 | 0.42 | 0.83 | | | | |
| 24 | 34.60 | 694 | 1.74 | 3.43 | | | | |

**Latching dual coil type - Reset coil**

| Rated voltage (VDC) | Rated current (mA) | Coil resistance (Ω) | Coil inductance (ref. value) (H) | | Pick-up voltage | Dropout voltage | Maximum voltage | Power consumption (mW) |
|---|---|---|---|---|---|---|---|---|
| | | | Armature OFF | Armature ON | % of rated voltage | | | |
| 3 | 200 | 15 | 0.001 | 0.002 | 70% max. | 70% max. | 110% max. at 70°C (158°F) | Approx. 600 |
| 5 | 119 | 42 | 0.003 | 0.006 | | | | |
| 6 | 100 | 60 | 0.005 | 0.009 | | | | |
| 12 | 50 | 240 | 0.018 | 0.036 | | | | |
| 24 | 25 | 960 | 0.079 | 0.148 | | | | |

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

# ■ Characteristics

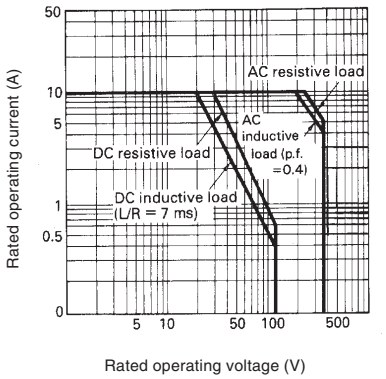
| Item | | Non-latching | Latching |
|---|---|---|---|
| Contact resistance | | 100 mΩ | |
| Operate (set) time | | 15 ms. max. | 20 ms max. |
| Release (reset) time | | AC: 10 ms max.; DC: 5 ms max. | 20 ms max. |
| Bounce time | Operate | --- | Mean value approx. 3 ms |
| | Release | --- | Mean value approx. 8 ms |
| Operating frequency | Mechanical | 18,000 operations/hour | |
| | Electrical | 1,800 operations/hour (under rated load) | |
| Insulation resistance | | 1,000 MΩ min. (at 500 VDC) | |
| Dielectric strength | | 5,000 VAC, 50/60 Hz for 1 minute between coil and contacts | |
| | | 1,000 VAC, 50/60 Hz for 1 minute across contacts of same pole | |
| | | 3,000 VAC, 50/60 Hz for 1 minute between contact sets, 2-pole non-latching | |
| | | 1,000 VAC, 50/60 Hz for 1 minute between set and reset coils of dual coil latching | |
| Vibration | Mechanical durability | 10 to 55 Hz; 1.50 mm (0.06) double amplitude | |
| | Malfunction durability | 10 to 55 Hz; 1.50 mm (0.06) double amplitude | |
| Shock | Mechanical durability | 1,000 m/s$^2$ (approx. 100G) | |
| | Malfunction durability | 200 m/s$^2$ (approx. 20 G) when energized<br>100 m/s$^2$ (approx. 10 G) when de-energized | 500 m/s$^2$ (approx. 50 G) at set<br>100 m/s$^2$ (approx. 10 G) at reset |
| Ambient temperature | | -40 to 70°C (-40 to 158°F) | |
| Humidity | | 35% to 85% RH | |
| Service life | Mechanical | AC: 10,000,000 operations min.<br>DC: 20,000,000 operations min.<br>(at 18,000 operations/hour) | 10,000,000 operations min.<br>(at 18,000 operations/hour) |
| | Electrical | See “Characteristics Data” | |
| Weight | | Approx. 17 g (0.60 oz.) | Approx. 17 g (0.60 oz.) |

**Note:** Data shown are of initial value.

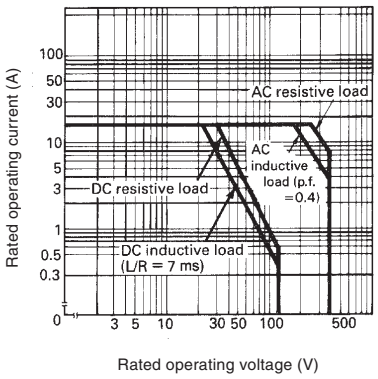
# ■ Characteristic Data

## Maximum Switching Capacity - Non-latching Types

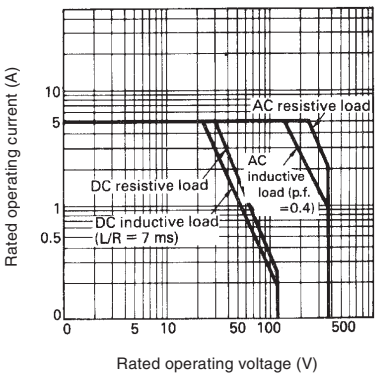
**PCB: Single-pole general purpose**
**Semi-sealed**
**Plug-in: Single-pole single button**
**Quick-connect**



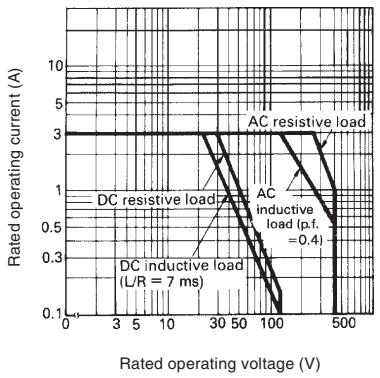

**High capacity**



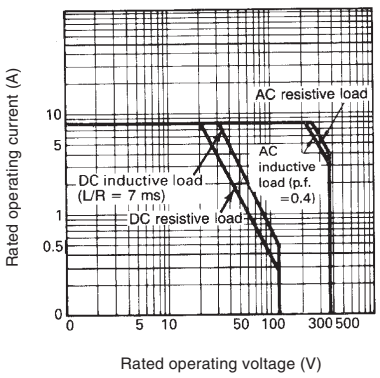

**PCB: Single-pole high sensitivity**
**Two-pole general purpose**
**Plug-in: Two-pole single button**



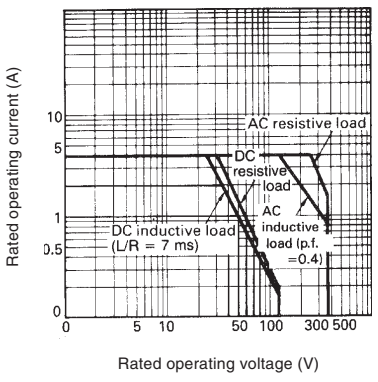

**PCB: Two-pole high sensitivity**




**PCB: Single-pole general purpose**
**Sealed**

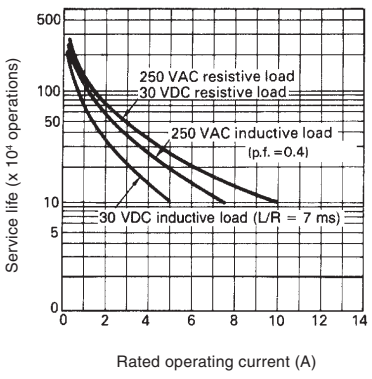



**PCB: Two-pole general purpose**
**Sealed**

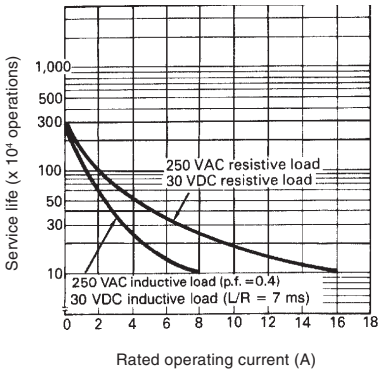



## Electrical Service Life - Non-latching Types

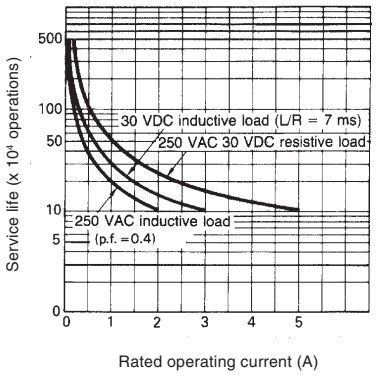
**PCB: Single-pole general purpose**
**Semi-sealed**
**Plug-in: Single-pole single button**
**Quick connect**



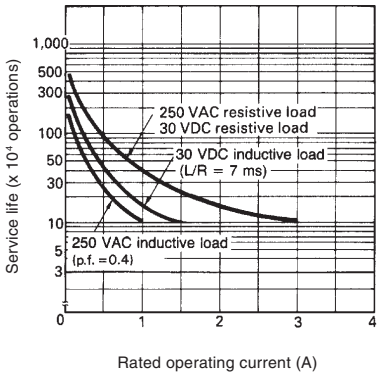

**High capacity**



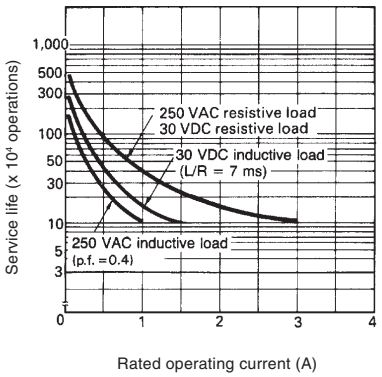

**PCB: Single-pole high sensitivity**
**Two-pole general purpose**
**Plug-in: Two-pole single button**



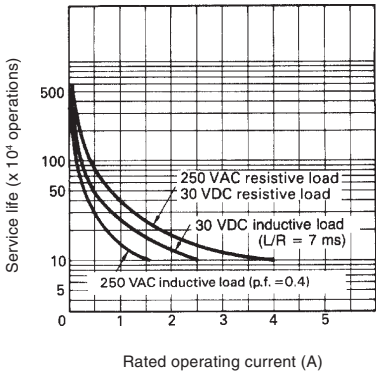
**PCB: Two-pole high sensitivity**




**PCB: Single-pole general purpose Sealed**

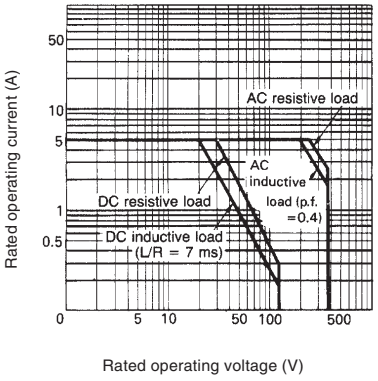



**PCB: Two-pole general purpose Sealed**

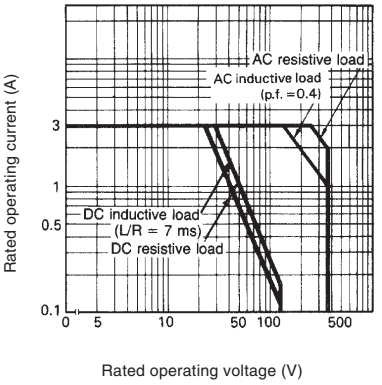



## Maximum Switching Capacity - Latching Types

**One pole**

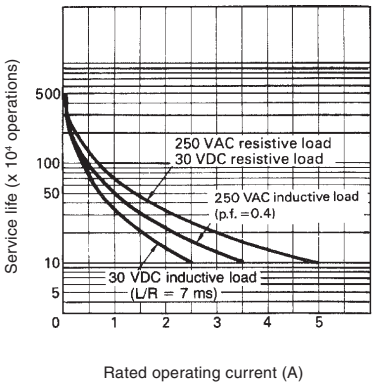



**Two-pole**

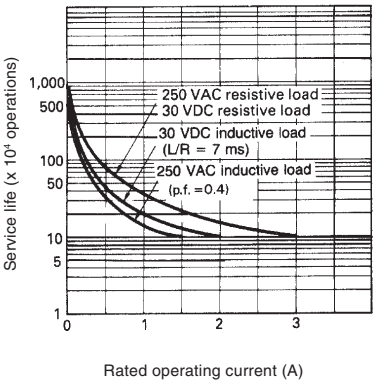



## Electrical Service Life - Latching Types

**One pole**




**Two-pole**

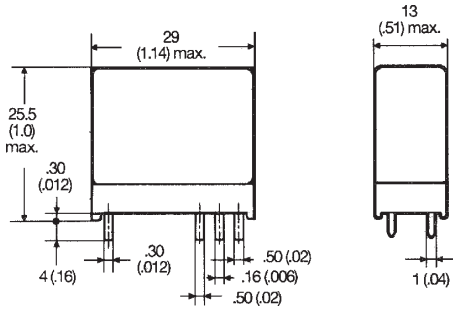


# Dimensions

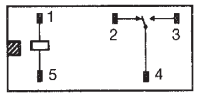
Unit: mm (inch)

## ■ Non-latching

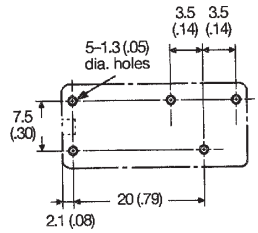
### PCB Terminal: SPDT, general purpose & high sensitivity



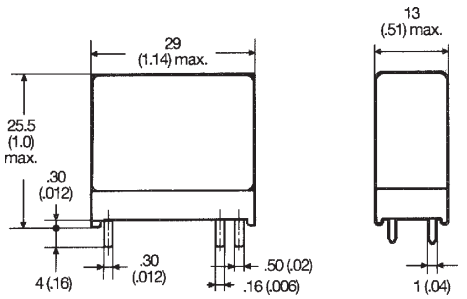

**Terminal arrangement/ Internal connections**
(Bottom view)



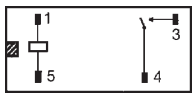

**Mounting holes**
(Bottom view)



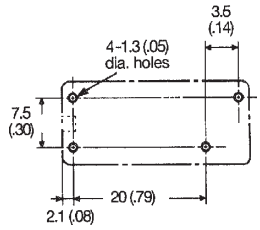

### PCB Terminal: SPST-NO, general purpose & high sensitivity



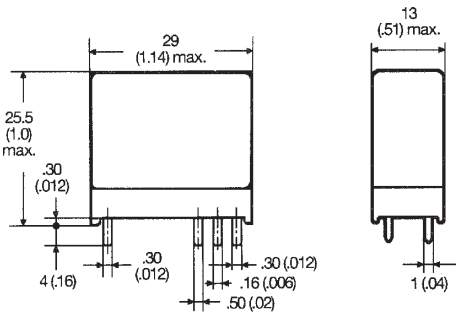

**Terminal arrangement/ Internal connections**
(Bottom view)



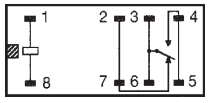

**Mounting holes**
(Bottom view)



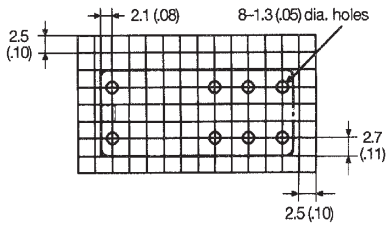

### PCB Terminal: SPDT, high capacity



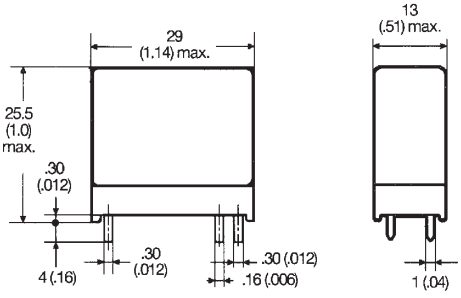

**Terminal arrangement/ Internal connections**
(Bottom view)



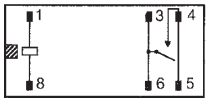

**Mounting holes**
(Bottom view)



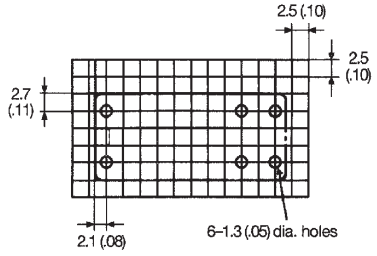

### PCB Terminal: SPST-NO, high capacity




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

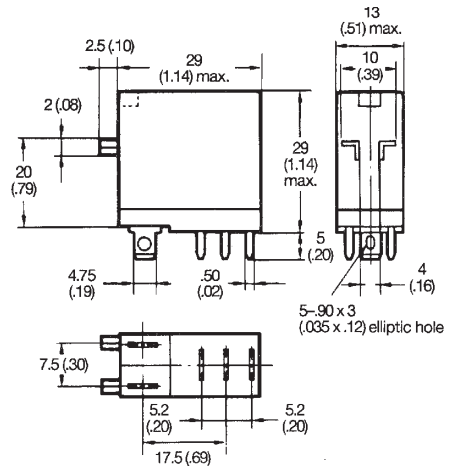



**Mounting holes**
(Bottom view)



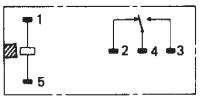

**Note: 1.** ▨ and [ ] indicate mounting orientation marks.
**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions.

**Plug-in: SPDT, single button general purpose, LED indicator, surge suppression diode**

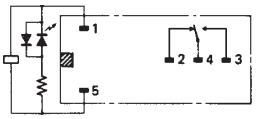



**Terminal arrangement/Internal connections**
(Bottom view)

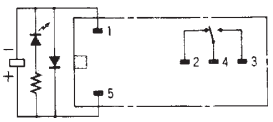
**G2R-1-S**



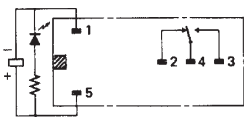

**G2R-1-SN(AC)**



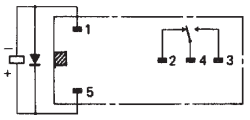

**G2R-1-SND(DC)**



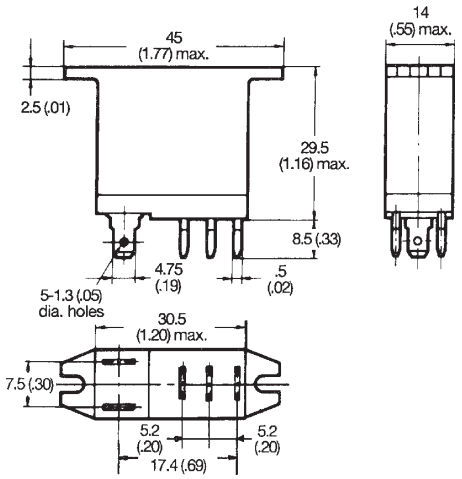

**G2R-1-SN(DC)**



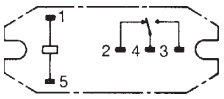

**G2R-1-SD(DC)**



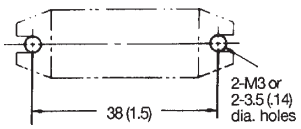

**Quick-connect: SPDT**



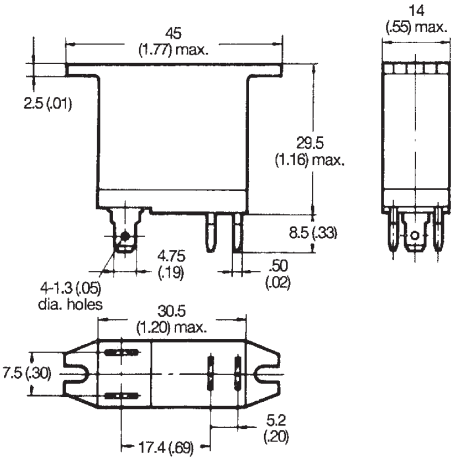

**Terminal arrangement/**
**Internal connections**
(Bottom view)



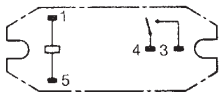

**Mounting holes**
(Bottom view)



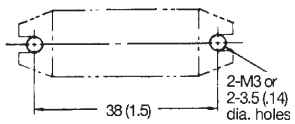

**Quick-connect: SPST-NO**




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

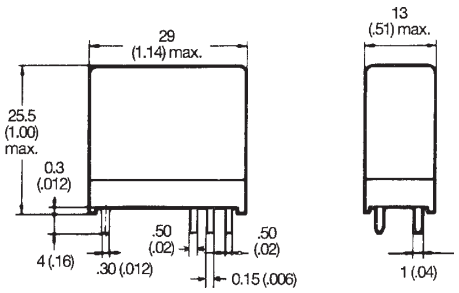



**Mounting holes**
(Bottom view)

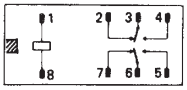



**Note: 1.** ▨ and [ ] indicate mounting orientation marks.
**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions

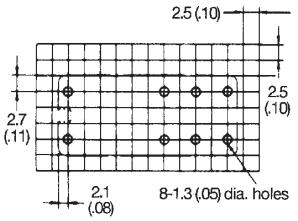
### PCB Terminal: DPDT, general purpose & high sensitivity



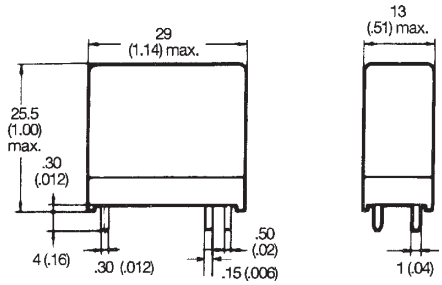

**Terminal arrangement/ Internal connections**
(Bottom view)




**Mounting holes**
(Bottom view)

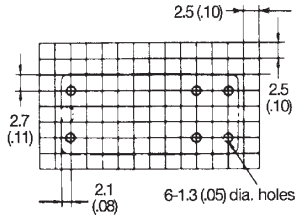



### PCB Terminal: DPST-NO, general purpose & high sensitivity



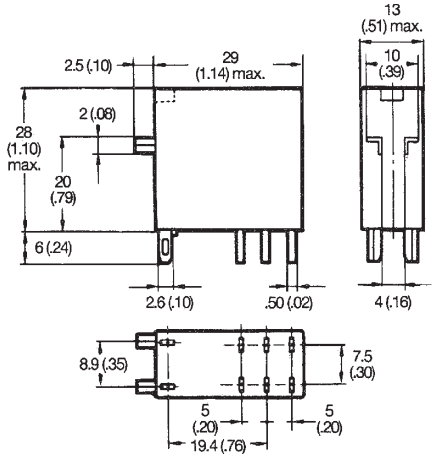

**Terminal arrangement/ Internal connections**
(Bottom view)


**Mounting holes**
(Bottom view)

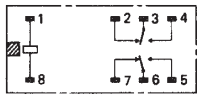



### Plug-in: DPDT

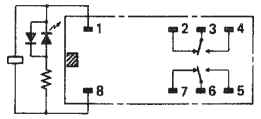
**Terminal arrangement/Internal connections**
(Bottom view)



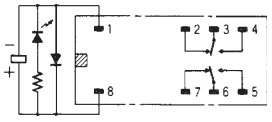

**G2R-2-S**



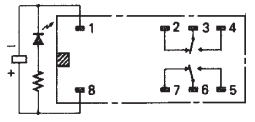

**G2R-2-SN(AC)**



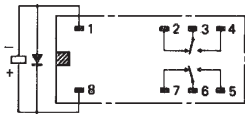

**G2R-2-SND(DC)**




**G2R-2-SN(DC)**



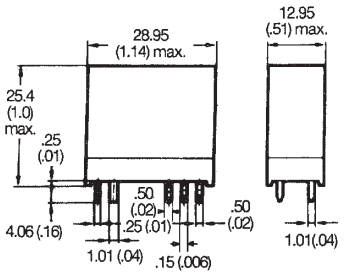

**G2R-2-SD(DC)**



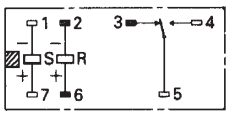

**Note: 1.** ▨ and [ ] indicate mounting orientation marks.
**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions.

# ■ Latching

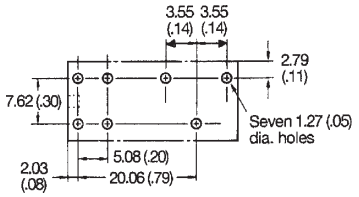
### SPDT, Dual coil latching
### G2RK-1



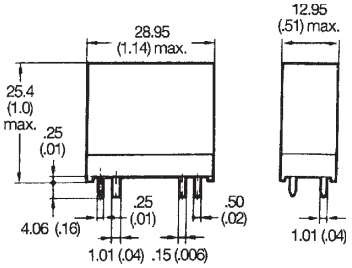

**Dual coil**



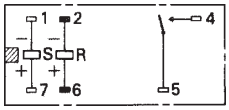

**Dual coil**



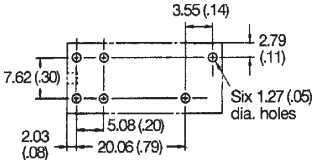

### SPST-NO, Dual coil latching
### G2RK-1A



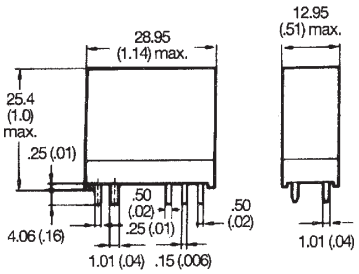

**Dual coil**



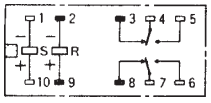

**Dual coil**



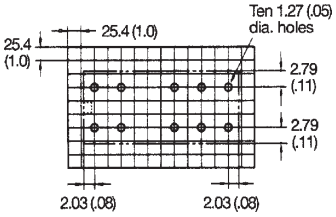

### DPDT, Dual coil latching
### G2RK-2



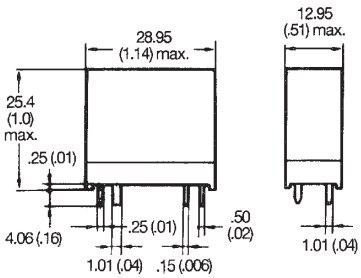

**Dual coil**



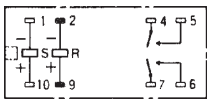

**Dual coil**



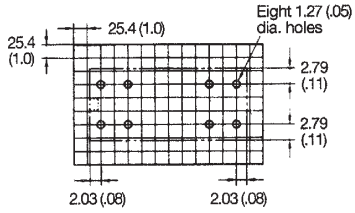

### DPST-NO, Dual coil latching
### G2RK-2A




**Dual coil**



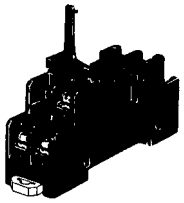

**Dual coil**

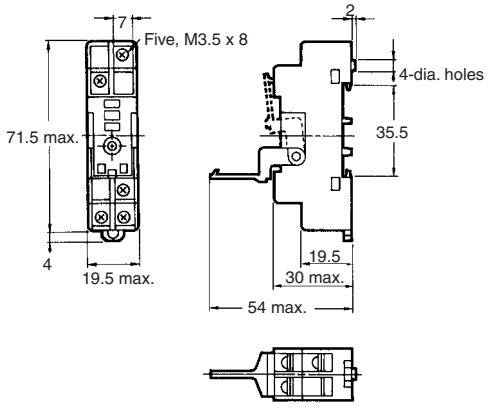



**Note: 1.** ▨ and [ ] indicate mounting orientation marks.
**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions.

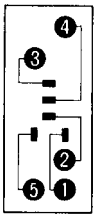
# ■ Accessories

**Track mounted socket**
**P2RF-05 (UL E87929/CSA LR31928)**

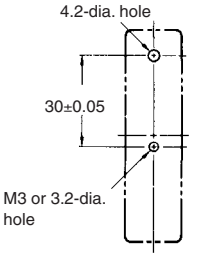




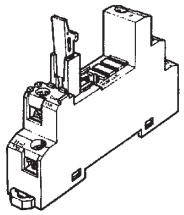

**Terminal arrangement (Top view)**

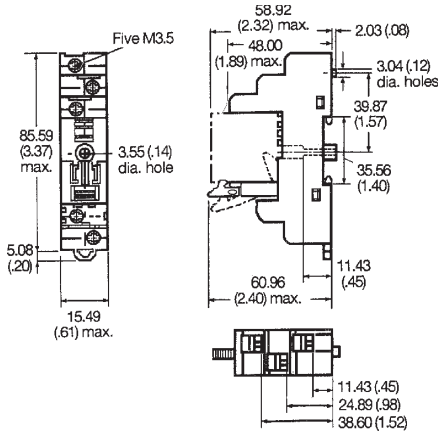



**Mounting holes (for surface mounting)**

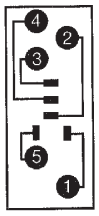



**Track mounted socket**
**P2RF-05-E (UL E87929/CSA LR31928)**

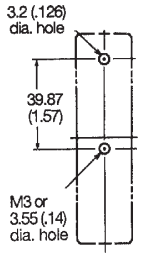




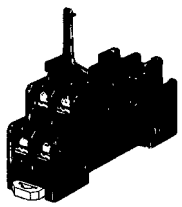

**Terminal arrangement**

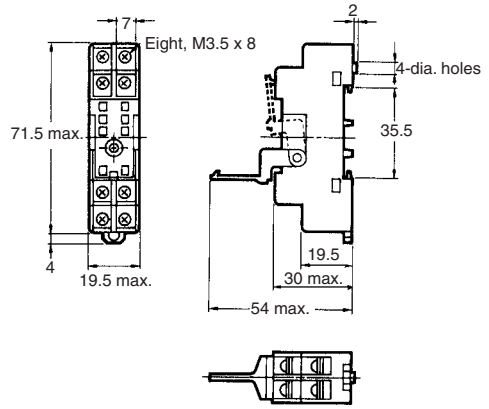



**Mounting holes**

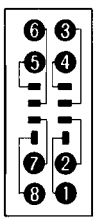



**Track mounted socket**
**P2RF-08 (UL E87929/CSA LR31928)**

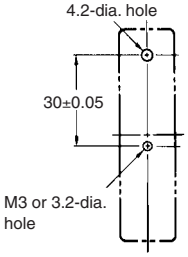





**Terminal arrangement (Top view)**

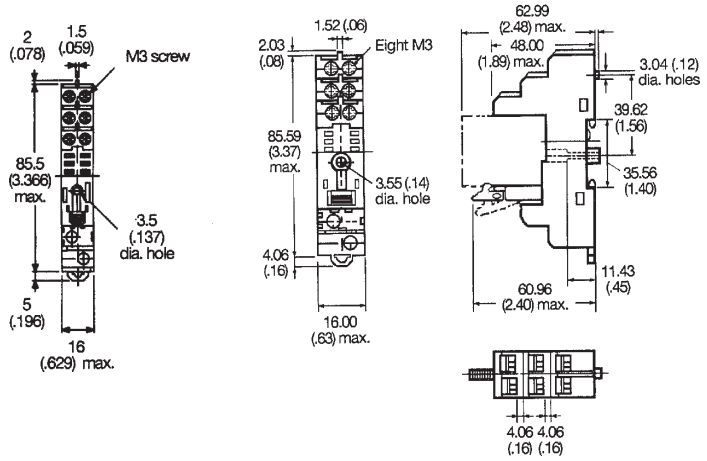



**Mounting holes (for surface mounting)**

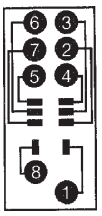



**Note: 1.** ▨ and [ ] indicate mounting orientation marks.
**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions.

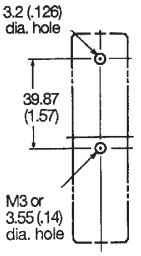
**Track mounted socket**
**P2RF-08-E (UL E87929/CSA LR31928)**




**Terminal arrangement**

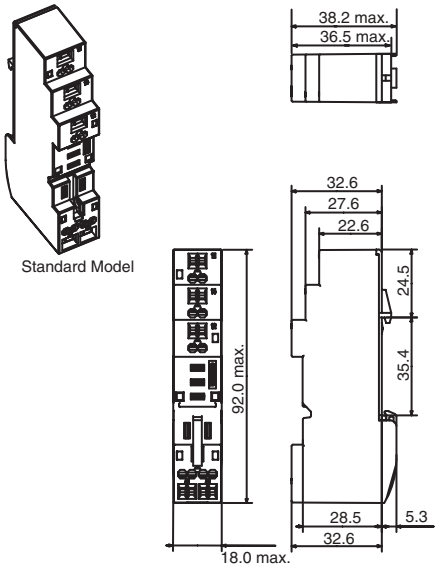



**Mounting holes**

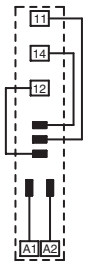



**Note: 1.** ▨ and [ ⎓ ] indicate mounting orientation marks.
**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions.

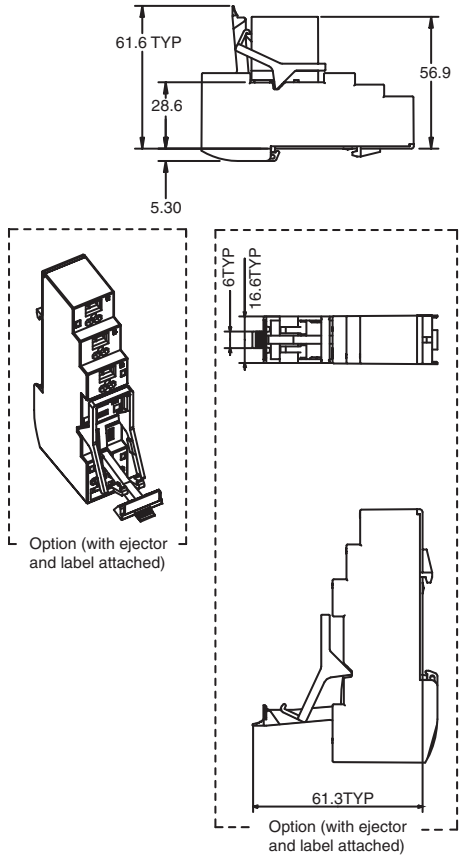
### Screwless Clamp Terminal Socket P2RF-05-S (UL E8729/CSA LR31928)



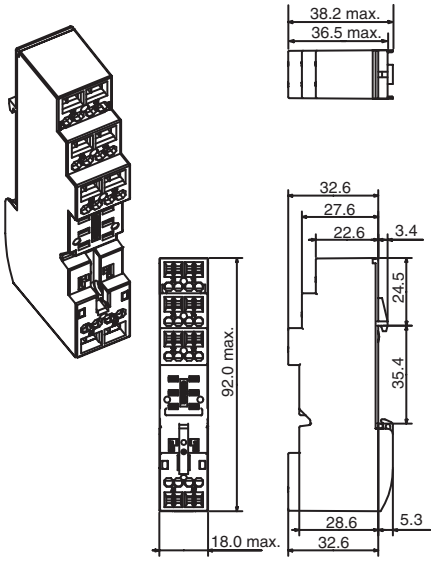

### Terminal Arrangement



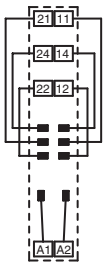

### Mounting Height (with lever)



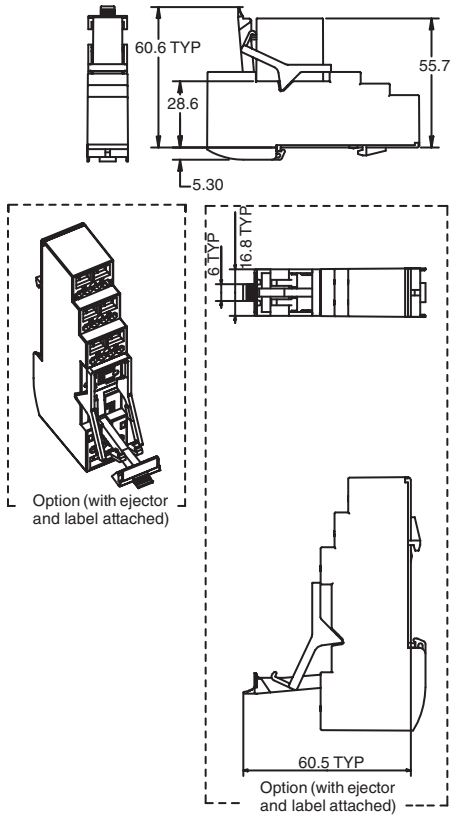

### Screwless Clamp Terminal Socket P2RF-08-S (UL E8729/CSA LR31928)



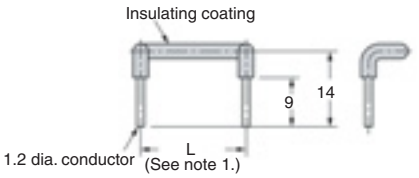

### Terminal Arrangement




### Mounting Height (with lever)



### Socket




**Note: 1.** The relationship between the model, the length L, and the color of the insulating coating is shown in the following table.

| Model | Length (L) mm | Color of insulating coating |
|---|---|---|
| P2RM-SR | 14.3 | Red |
| P2RM-SB | | Blue |

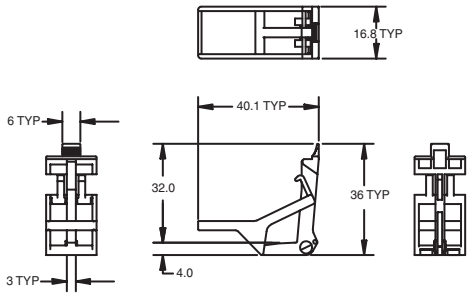
**2.** The insulating coating must be able to withstand a voltage of 3,000 V for 1 minute. Use either PE or PA as the material of the insulating coating.

**3.** The positions of the ends of the insulating coating must not vary more than 0.5 mm.

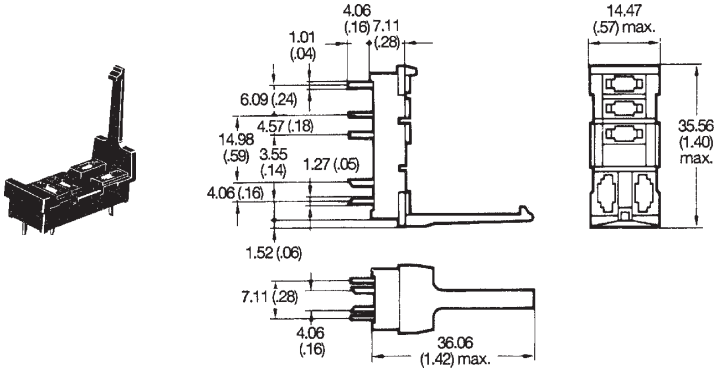
**4.** The characteristics of the socket bridge are shown in the following table.

| Item | Characteristic |
|---|---|
| Rated ON current | 10 A |
| Rated insulation voltage | 250 VAC |
| Temperature rise | 35°C max. |
| Dielectric strength | 3,000 VAC for 1 minute |
| Ambient operating temperature | -55 to 70°C |

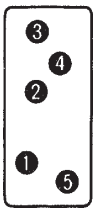
### Clip and Release Lever



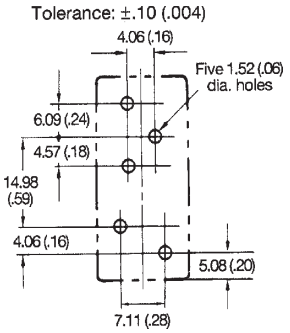

### Back connecting socket
### P2R-05P (1-pole) (UL E87929/CSA LR31928)




**Terminal arrangement**



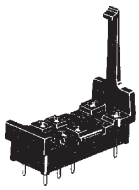

**Mounting holes**

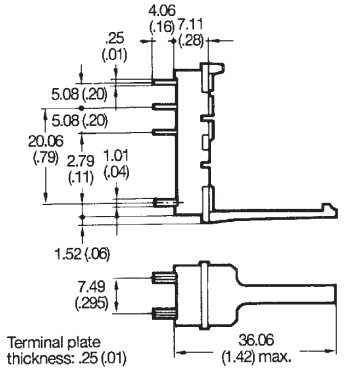


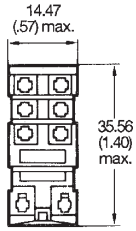

**Note: 1.** ▨ and [ ▬ ] indicate mounting orientation marks.

**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions.

**Back connecting socket**
**P2R-08P (2-pole) (UL E87929/CSA LR31928)**

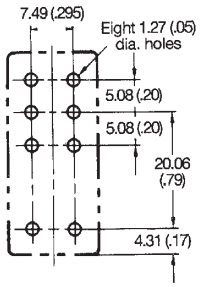




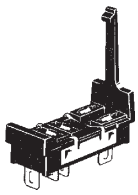



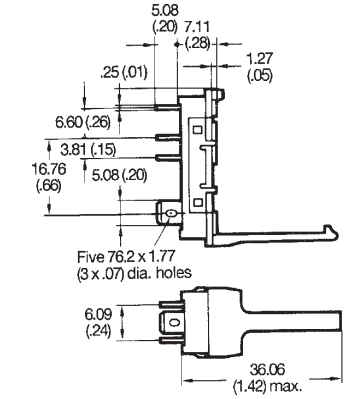

**Terminal arrangement**

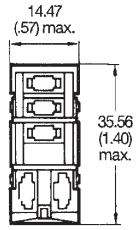

**Mounting holes**



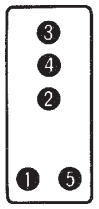

**Back connecting socket**
**P2R-05A (1-pole) (UL E87929/CSA LR31928)**



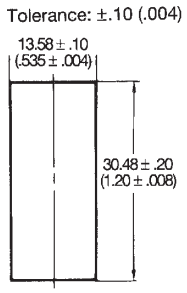



**Terminal arrangement**

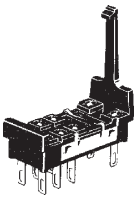


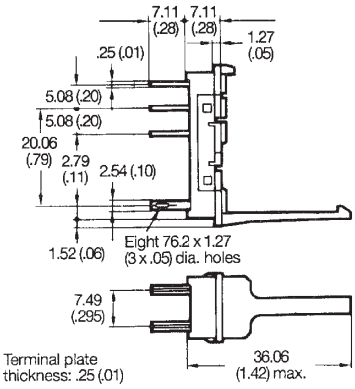

**Mounting holes**
(Bottom view)

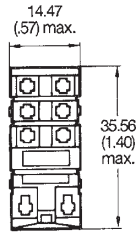



Recommended thickness of the panel is 1.52 (.06) to 2.03 (.08)

**Back connecting socket**
**P2R-08A (2-pole) (UL E87929/CSA LR31928)**

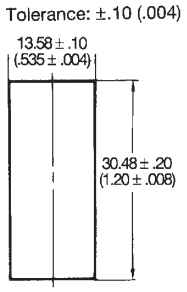





**Terminal arrangement**

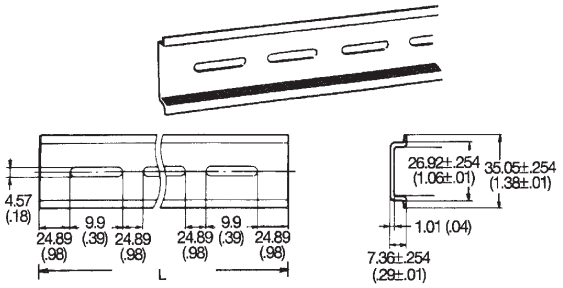

**Mounting holes**
(Bottom view)



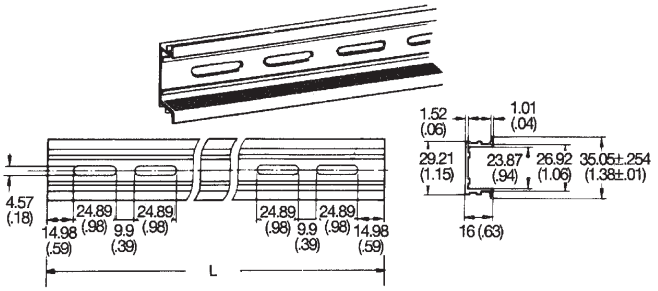

Recommended thickness of the panel is 1.52 (.06) to 2.03 (.08)

**Note: 1.** ▨ and [ ] indicate mounting orientation marks.
**2.** A tolerance of ±0.10 (0.004) applies to the above dimensions.

**Mounting track**
**PFP-100N, PFP-50N**

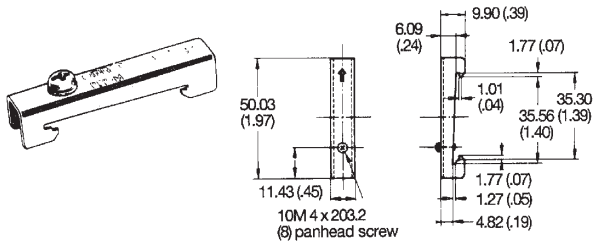



**Mounting track**
**PFP-100N2**

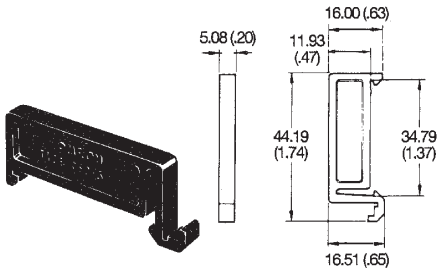



Note: 1. It is recommended that a panel thickness of 0.06 to 0.08 mm (0.002 to 0.003 in) be used.
2. L = Length
PFP-100N ..... L = 990.60 mm (39.00 in)
PFP-50N ..... L = 497.84 mm (19.60 in)
PFP-100N2 ..... L = 990.60 mm (39.00 in)

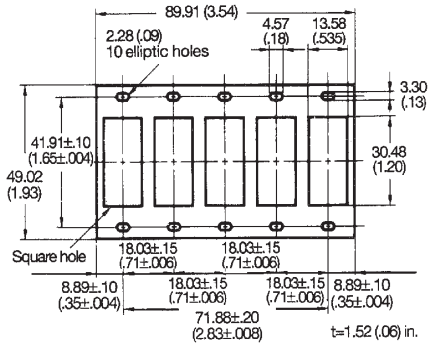
**End plate**
**PFP-M**




**Spacer**
**PFP-S**




**Connecting socket mounting plate**
**P2R-P**



# ■ Approvals

**UL (File No. E41643)/ CSA (File No. 31928)**

| Type | Contact form | Coil rating | Contact ratings |
|---|---|---|---|
| G2R-1<br>G2R-14<br>G2R-1-H<br>G2R-14-H<br>G2R-1-S<br>G2R-1-T | SPDT | 3 to 110 VDC<br>3 to 240 VDC | 10 A, 30 VDC (Resistive)<br>10 A, 250 VAC (General purpose)<br>10 A, 277 VAC (General purpose)<br>TV-3, 120 VAC (NO contact)<br>360 WT, 120 VAC (Tungsten)<br>1/3 HP, 125 VAC (NO contact)<br>1/2 HP, 250 VAC (NO contact)<br>1/2 HP, 277 VAC (NO contact)<br>TV-8, 120 VAC (NO contact, ASI contacts)<br>B300 (Pilot duty) |
| G2R-1A<br>G2R-1A4<br>G2R-1A-H<br>G2R-1A4-H<br>G2R-1A-T | SPST-NO | | |
| G2R-1-E | SPDT | 3 to 110 VDC<br>3 to 240 VAC | 20 A, 277 VAC (General purpose)<br>16 A, 30 VDC (Resistive)<br>16 A, 250 VAC (General purpose)<br>360 WT, 120 VAC (Tungsten)<br>TV-3, 120 VAC (NO contact)<br>1/2 HP, 240 VAC<br>1 HP, 240 VAC<br>TV-8, 120 VAC (No contact, ASI contacts) |
| G2R-1A-E | SPST-NO | | |
| G2R-2<br>G2R-24<br>G2R-2-H<br>G2R-24-H<br>G2R-2-S<br>G2R-2-A<br>G2R-2A4<br>G2R-2A-H<br>G2R-2A4-H | DPDT | 3 to 110 VDC<br>3 to 240 VAC | 10 A, 30 VDC (Resistive)<br>10 A, 277 VAC (General purpose)<br>5 A, 250 VAC (General purpose)<br>TV-3, 120 VAC (NO contact)<br>1/6 HP, 120 VAC<br>1/3 HP, 240 VAC<br>1/3 HP, 265 VAC<br>250 VA, 120 VAC (Pilot duty)<br>B300 (Pilot duty) |
| G2RK-1 | SPDT | 3 to 24 VDC | 10 A, 30 VDC (Resistive)<br>10 A, 250 VAC (General purpose)<br>TV-3 (NO contact)<br>1/6 HP, 120 VAC<br>1/2 HP, 120 VAC<br>A300 (Pilot duty) |
| G2RK-1A | SPST-NO | | |
| G2RK-2 | DPDT | 3 to 24 VDC | 5 A, 30 VDC (Resistive)<br>5 A, 250 VAC (General purpose)<br>TV-3 (NO contact)<br>1/6 HP, 120 VAC<br>1/3 HP, 240 VAC |
| G2RK-2A | DPST-NO | | |

**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.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters into inches, divide by 25.4

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