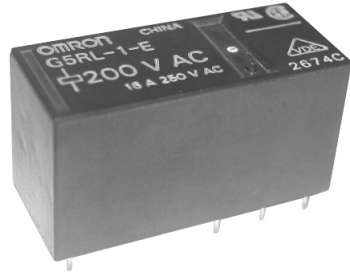


## A Single-pole 16A Power Relay AC-coil Type

- ROHS compliant
- L 29.0 x W 12.7 x H 15.7 (mm)  
Low profile: 15.7mm in height.
- Standards class F insulation available.
- Clearance and creepage distance between coil and contact: 8mm / 8mm, between the same pole 3mm / 4mm.



## Ordering Information

Classification		Enclosure ratings	Contact form	
			SPST-NO	SPDT
Class F	High-capacity	Flux protection	-	G5RL-1-E

**Note:** When ordering, add the rated coil voltage to the number.

Example: G5RL-1-E 100 VAC

Rated coil voltage

### Model Number Legend

G5RL -          -       VAC  
           1   2   3       4   5

**1. Number of Poles**

1: 1 pole

**2. Contact Form / Contact Construction**

None: SPDT

**3. Enclosure Ratings**

None: Flux protection

**4. Classification**

E: High capacity

**5. Rated Coil Voltage**

24, 100, 115/120, 200, 230/240 VAC

## Specifications

### ■ Coil Ratings

Rated voltage	24 VAC	100 VAC	115 VAC / 120 VAC		200 VAC	230 VAC / 240 VAC	
Rated current 50Hz (mA)	31.30	7.50	5.85	6.25	3.75	3.00	3.13
Rated current 60Hz (mA)	28.30	6.88	5.35	5.70	3.45	2.76	2.88
Coil resistance $\Omega$	443	8220	11600		33000	47600	
Must operate voltage	75% max. of rated voltage						
Must release voltage	15% min. of rated voltage						
Max. voltage	90% ~ 110% of rated voltage						
Power consumption	Approx. 0.75 VA						

- Note: 1. The above items are measured at a coil temperature of 23.  
 2. The tolerance of rated current is +15% / -20%.  
 3. Power consumption drop was measured at 50Hz.  
 4. Coil resistance is provided as reference values.

### ■ Contact Ratings

Load	Resistive load ( $\cos \phi = 1$ )
Rated load	AC250V 16A (N.O.), DC 24V 16A (N.O.), AC 250V 5A (N.C.), DC24V 5A (N.C.)
Contact material	AgSnIn
Rated carry current	16A (N.O.), 5A (N.C.)
Max. switching voltage	AC 250V, DC24V
Max. switching current	16A (N.O.), 5A (N.C.)
Max. switching capacity	AC 4000 VA (N.O.), AC 1250 VA (N.C.), DC384 W(N.O.), DC120 W (N.C.)
Min. permissible load	DC 24V 40mA

### ■ Approved Standards

**UL 508 (File No. E41643 Vol.4 Sec.38) / CSA C22.2 No.1, C22.2 No.14  
 (Certificate No:1419093)**

Model	Coil ratings	Contact ratings
G5RL-1-E	24VAC to 240 VAC	16 A, 277 VAC General, 50,000 c - NO 16 A, 250 VAC General, 50,000 c - NO TV-5, 25,000 c - NO A 300 Pilot Duty, 720 VA, 240 VAC, 30,000 c- NO ½Hp, 120 VAC, 6,000 c - NO 60 LRA/ 10 FLA, 250 VAC, 6,000 c - NO 5 A, 250 VAC General, 50,000 c - NC 5 A, 24 VDC Resistive, 50,000 c - NC

### DIN EN 61810-1/EN 60255-23 (VDE Reg. No. A662)

Model	Coil ratings	Contact ratings
G5RL-1-E	24,100,115/120, 200, 230/240 VAC (50Hz)	16A, 250 VAC, 16A 24 VDC

## ■ Characteristics

<b>Contact resistance</b>		100 mΩ max.
<b>Operate time</b>		20 ms max.
<b>Release time</b>		20 ms max.
<b>Max. switching frequency</b>		Mechanical: 18,000 operations/hr Electrical: 1,800 operations/hr (under rated load)
<b>Insulation resistance</b>		1,000MΩ min. (at 500VDC)
<b>Dielectric strength</b>		1,000 VAC, 50/60 Hz for 1 min. between contacts of same polarity 6,000 VAC, 50/60 Hz for 1 min. between coil and contacts
<b>Insulation Distance</b>	<b>Creepage (Typ)</b>	8.0 mm
	<b>Clearance (Typ)</b>	8.0 mm
<b>Tracking Resistance (CTI)</b>		250 V
<b>Impulse withstand voltage</b>		10,000V between coil and contacts, 1.2 X 50 μsec
<b>Vibration resistance</b>		Destruction: 10 to 55 to 10Hz, 1.5 mm double amplitude Malfunction: 10 to 55 to 10Hz, 1.5 mm double amplitude
<b>Shock resistance</b>		Destruction: 1,000 m/s <sup>2</sup> (approx. 100G) Malfunction: 100 m/s <sup>2</sup> (approx. 10G)
<b>Life expectancy</b>		Mechanical: 10,000,000 operations min. (at 18,000 operations/hr) Electrical: 50,000 operations min. Resistive load 16A 250VAC N.O. at 1 sec on / 4 sec off Resistive load 16A 24VDC N.O. at 1 sec on / 4 sec off Resistive load 5A 250VAC N.C. at 1 sec on / 4 sec off Resistive load 5A 24VDC N.C. at 1 sec on / 4 sec off 100,000 operations min. Resistive load 12A 24VDC N.O. at 1 sec on / 4 sec off

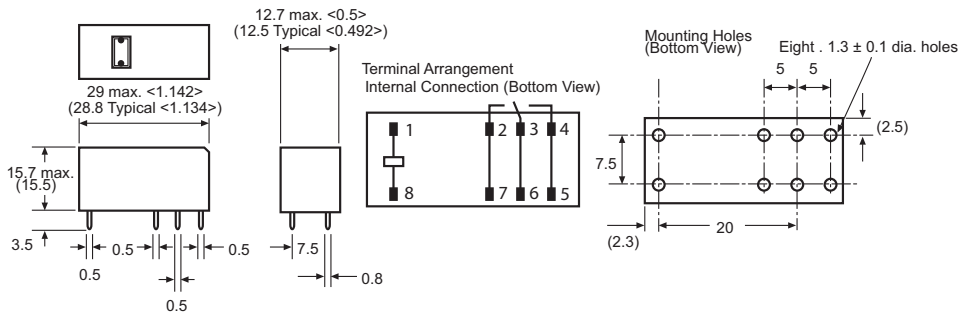
**Ambient temperature** Operating: -40°C to 70°C (with no icing)

**Ambient humidity** Operating: 5% to 85%

**Weight Approx.** 10 g

## Dimensions

**Note:** All units are in millimeters unless otherwise indicated.



## Packaging

**Note:** All units are in millimeters unless otherwise indicated.

### Polystyrene Trays Packing

1 Polystyrene: 100 pcs relay

1 Sleeve Packing: 5 polystyrene tray

1 Carton: 2 sleeve packing –1000 pcs relay

Weight: Approx. 12 Kg per carton

Size of polystyrene tray is approximately:340 (L) x 120 (W) x 48 (H)

Size of Carton box is approximately: 535 (L) x 355 (W) x 250 (H)

