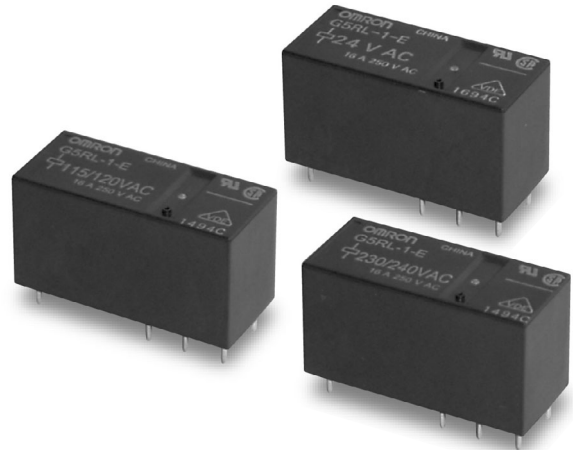


### A Single-pole, 16-A Power Relay with AC Coil

- 29.0 × 12.7 × 15.7 mm (L × W × H)  
Low profile: 15.7 mm in height
- UL class F insulation available.
- Clearance and creepage distance  
Between coil and contacts: 8 mm/8 mm  
Between contacts of the same polarity: 3 mm/4 mm
- Environment friendly:  
Cd, Pb and Chromium free.



## 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 model number.

Examples: G5RL-1-E 100 VAC  
└─ Rated coil voltage

### Model Number Legend:

G5RL-□□□-□  
1 2 3 4

#### 1. Number of Poles

1: 1 pole

#### 2. Contact Form/Contact Construction

None: SPDT

#### 3. Enclosure Rating

None: Flux protection

#### 4. Classification

E: High-capacity

# Specifications

## ■ Coil Ratings

Rated voltage	24 VAC	100 VAC	115 VAC/120 VAC		200 VAC	230 VAC/240 VAC	
Rated current at 50 Hz (mA)	31.30	7.50	5.85	6.25	3.75	3.00	3.13
Rated current at 60 Hz (mA)	28.30	6.88	5.35	5.70	3.45	2.76	2.88
Coil resistance ( $\Omega$ )	443	8,220	11,600		33,000	47,600	
Must operate voltage	75% of rated voltage (max.)						
Must release voltage	15% of rated voltage (min.)						
Max. voltage	90% to 110% of rated voltage						
Power consumption	Approx. 0.75 VA						

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

## ■ Contact Ratings

Load	Resistive load ( $\cos \phi=1$ )
Rated load	16 A at 250 VAC (NO), 16 A at 24 VDC (NO), 5 A at 250 VAC (NC), 5 A at 24 VDC (NC)
Rated carry current	16 A (NO), 5 A (NC)
Max. switching voltage	250 VAC, 24 VDC
Max. switching current	16 A (NO), 5 A (NC)
Max. switching capacity	4,000 VA AC (NO), 1,250 VA AC (NC) 384 W DC (NO), 120 W DC (NC)
Min. permissible load	40 mA at 24 VDC

## ■ Approved Standards

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

Model	Coil Rating	Contact rating
G5RL-1-E	24 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 1/2 Hp, 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

VDE DIN EN 61810-1 Edition 2 and EN60255-25 (Reg. No. A662)

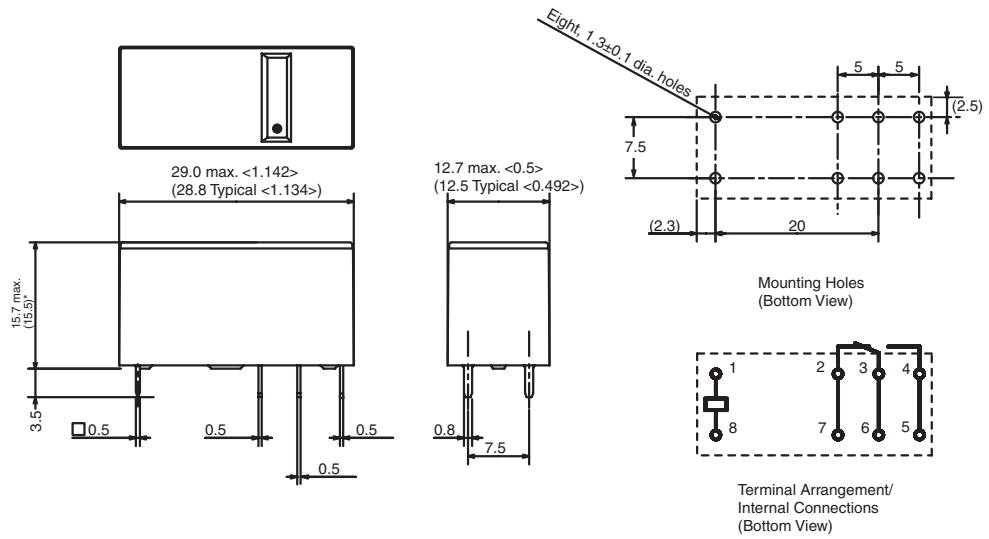
Model	Coil Rating	Contact rating
G5RL-1-E	24, 100, 115/120, 200, 230/240 VAC (50 Hz)	16 A, 250 VAC 15,000 c

## ■ Characteristics

<b>Contact resistance</b>	100 mΩ max.
<b>Operate time</b>	15 ms max.
<b>Release time</b>	5 ms max.
<b>Max. switching frequency</b>	Mechanical: 18,000 operations/hr Electrical: 1,800 operations/hr (under rated load)
<b>Insulation resistance</b>	1,000 MΩ min. (at 500 VDC)
<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>Impulse withstand voltage</b>	10,000 V between coil and contacts, $1.2 \times 50 \mu\text{s}$
<b>Vibration resistance</b>	Destruction: 10 to 55 to 10 Hz, 1.5-mm double amplitude Malfunction: 10 to 55 to 10 Hz, 1.5-mm double amplitude
<b>Shock resistance</b>	Destruction: $1,000 \text{ m/s}^2$ (approx. 100 G) Malfunction: $100 \text{ m/s}^2$ (approx. 10 G)
<b>Life expectancy</b>	Mechanical: 10,000,000 operations min. (at 18,000 operations/hr) Electrical 50,000 operations min. (at 1,800 operations/hr, Resistive load, 16 A, 250 VAC, NO) (at 1,800 operations/hr, Resistive load, 16 A, 24 VDC, NO) (at 1,800 operations/hr, Resistive load, 5 A, 250 VAC, NC) (at 1,800 operations/hr, Resistive load, 5 A, 24 VDC, NC) 100,000 operations min. (at 1,800 operations/hr, Resistive load, 12 A, 24 VDC, NO)
<b>Ambient temperature</b>	Operating: $-40^\circ\text{C}$ to $70^\circ\text{C}$
<b>Ambient humidity</b>	Operating: 5% to 85%
<b>Weight</b>	Approx.: 10 g

## Dimensions

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



## Packaging

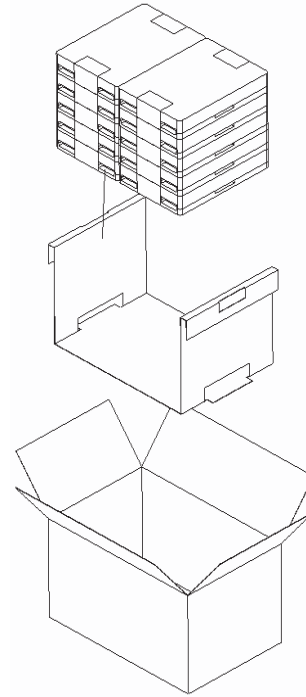
**Note:** All units are in millimeters unless otherwise indicated.

### ■ Polystyrene Tray Packing

- 1 Polystyrene tray = 100 relays
- 1 Sleeve = 5 polystyrene trays
- 1 Carton = 2 sleeves
- = 1,000 relays

Weight = Approx. 12 kg per carton

- Size of polystyrene tray: 340 × 120 × 48 mm (L × W × H)
- Size of carton: 535 × 355 × 250 mm (L × W × H)



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  4. Delivery and shipping dates are estimates only.
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