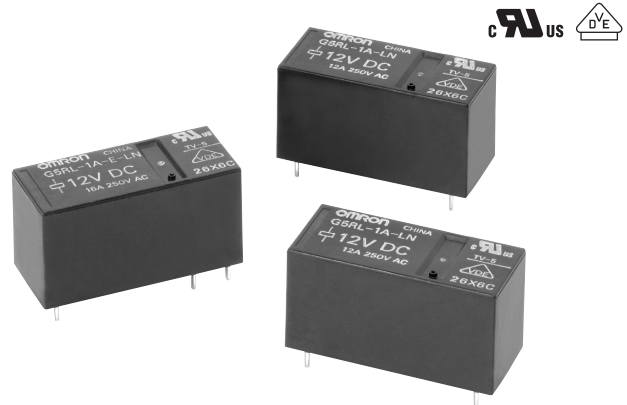


## Low-profile Relay with Various Models

- Low profile: 15.7 mm in height.
- Creepage distance 8mm between coil and contacts
- 10 kV Impulse withstand voltage
- Models with AC coil available.
- High-Inrush model available (Inrush peak currents up to 100 A)
- Low Noise models available (Approx. 10 to 20 dB less sound pressure than standard G5RL-Series Relays)
- TV8 Rating models available (TV8 for UL standard)

RoHS Compliant



### Model Number Legend

G5RL-□□-□-□  
1 2 3 4

#### 1. Number of poles

1: 1-pole

#### 3. Classification

None: Standard

E : High-capacity

#### 2. Contact Form

None: SPDT (1c)

A : SPST-NO (1a)

#### 4. Additional Models

None: Standard

HR: High-inrush

LN: Low Noise

TV8: TV8 rating

### Application Examples

- Housing equipments
- Audio-visual products
- Office automation machines
- Air-conditioners
- Lighting

G  
5  
R  
L

### Ordering Information

| Classification | Terminal Shape | Contact form | Enclosure rating | Model                                               | Rated coil voltage        | Minimum packing unit |
|----------------|----------------|--------------|------------------|-----------------------------------------------------|---------------------------|----------------------|
| Standard       | PCB terminals  | SPST-NO (1a) | Flux protection  | G5RL-1A-LN                                          | 5VDC, 12VDC, 24VDC        | 100 pcs/tray         |
| High-capacity  |                |              |                  | G5RL-1A-E-HR                                        | 5VDC, 12VDC, 24VDC, 48VDC |                      |
|                |                |              |                  | G5RL-1A-E-LN                                        | 5VDC, 12VDC, 24VDC        |                      |
|                |                |              |                  | G5RL-1A-E-TV8                                       | 5VDC, 12VDC, 24VDC, 48VDC |                      |
|                |                | G5RL-1-E     |                  | 24VAC, 100VAC, 115VAC/120VAC, 200VAC, 230VAC/240VAC |                           |                      |
|                |                | G5RL-1-E-HR  |                  | 5VDC, 12VDC, 24VDC, 48VDC                           |                           |                      |
|                | SPDT (1c)      |              |                  |                                                     |                           |                      |

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

Example: G5RL-1A-LN DC5

Rated coil voltage

However, the notation of the coil voltage on the product case as well as on the packing will be marked as □□ VDC.

### Ratings

#### Coil

#### Low Noise Models: G5RL-1A(-E)-LN

| Rated Voltage<br>(VDC) | Rated current<br>(mA) | Coil resistance<br>(Ω) | Must operate voltage<br>(V) | Must release voltage<br>(V) | Max voltage<br>(V) | Power<br>consumption<br>(mW) |
|------------------------|-----------------------|------------------------|-----------------------------|-----------------------------|--------------------|------------------------------|
|                        |                       |                        | % of rated voltage          |                             |                    |                              |
| 5                      | 106                   | 47.2                   | 70% max.                    | 10% min.                    | 110%               | Approx. 530                  |
| 12                     | 44.2                  | 272                    |                             |                             |                    |                              |
| 24                     | 22.1                  | 1,086                  |                             |                             |                    |                              |

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

High-Inrush Models: G5RL-1(A)-E-HR, G5RL-1A-E-TV8

| Rated Voltage<br>(VDC) | Rated current<br>(mA) | Coil resistance<br>(Ω) | Must operate voltage<br>(V) | Must release voltage<br>(V) | Max. voltage<br>(V) | Power<br>consumption<br>(mW) |
|------------------------|-----------------------|------------------------|-----------------------------|-----------------------------|---------------------|------------------------------|
|                        |                       |                        | % of rated voltage          |                             |                     |                              |
| 5                      | 80                    | 62.5                   | 70% max.                    | 10% min.                    | 130%                | Approx. 400                  |
| 12                     | 33.3                  | 360                    |                             |                             |                     |                              |
| 24                     | 16.7                  | 1,440                  |                             |                             |                     |                              |
| 48                     | 8.96                  | 5,358                  |                             |                             |                     | Approx. 430                  |

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

Models with AC Coil: G5RL-1-E

| Rated Voltage<br>(VAC) | Rated current<br>at 50Hz<br>(mA) | Rated current<br>at 60Hz<br>(mA) | Coil resistance<br>(Ω) | Must operate voltage<br>(V) | Must release voltage<br>(V) | Max. voltage<br>(V) | Power consumption<br>(mW) |
|------------------------|----------------------------------|----------------------------------|------------------------|-----------------------------|-----------------------------|---------------------|---------------------------|
|                        |                                  |                                  |                        | % of rated voltage          |                             |                     |                           |
| 24                     | 31.3                             | 28.3                             | 443                    | 75% max.                    | 15% min.                    | 110%                | Approx. 750               |
| 100                    | 7.5                              | 6.88                             | 8,220                  |                             |                             |                     |                           |
| 115/120                | 5.85/6.25                        | 5.35/5.70                        | 11,600                 |                             |                             |                     |                           |
| 200                    | 3.75                             | 3.45                             | 33,000                 |                             |                             |                     |                           |
| 230/240                | 3.00/3.13                        | 2.76/2.88                        | 47,600                 |                             |                             |                     |                           |

Note 1. The rated current tolerance is +15%/-20%. All above data is based on coil temperature of 23°C.  
2. Coil resistances are provided as reference values.

●Contacts

Low Noise Models: G5RL-1A(-E)-LN

| Load                   | Resistive load                    |                                   |
|------------------------|-----------------------------------|-----------------------------------|
|                        | Standard                          | High-capacity                     |
| Contact form           | SPST-NO (1a)                      |                                   |
| Contact Type           | Single                            |                                   |
| Contact material       | Ag Alloy                          |                                   |
| Rated load             | 12 A at 250 VAC<br>12 A at 24 VDC | 16 A at 250 VAC<br>16 A at 24 VDC |
| Rated carry current    | 12 A                              | 16 A                              |
| Max. switching voltage | 250 VAC, 24 VDC                   |                                   |
| Max. switching current | 12 A                              | 16 A                              |

High-Inrush Models: G5RL-1(A)-E-HR, G5RL-1A-E-TV8

| Load                   | Resistive load                    |                                                            |
|------------------------|-----------------------------------|------------------------------------------------------------|
|                        | High-capacity                     |                                                            |
| Contact form           | SPST-NO (1a)                      | SPDT (1c)                                                  |
| Contact Type           | Single                            |                                                            |
| Contact material       | Ag Alloy                          |                                                            |
| Rated load             | 16 A at 250 VAC<br>16 A at 24 VDC | 16 A at 250 VAC, 24VDC (NO)<br>5 A at 250 VAC, 24 VDC (NC) |
| Rated carry current    | 16 A                              | 16 A (NO), 5 A (NC)                                        |
| Max. switching voltage | 250 VAC, 24 VDC                   |                                                            |
| Max. switching current | 16 A                              | 16 A (NO), 5 A (NC)                                        |

Models with AC Coil: G5RL-1-E

| Load                   | Resistive load                                              |  |
|------------------------|-------------------------------------------------------------|--|
|                        | High-capacity                                               |  |
| Contact form           | SPDT (1c)                                                   |  |
| Contact Type           | Single                                                      |  |
| Contact material       | Ag Alloy                                                    |  |
| Rated load             | 16 A at 250 VAC, 24 VDC (NO)<br>5 A at 250 VAC, 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)                                         |  |