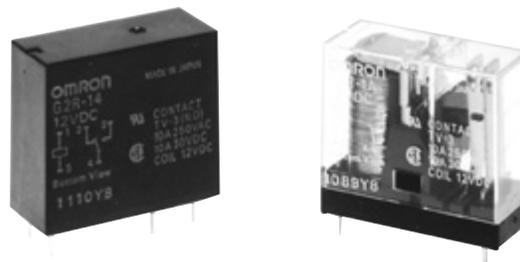


# Power PCB Relay G2R

- 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
				G2R-1A-E
High-sensitivity		SPDT	Semi-sealed	G2R-1-H
				Sealed
	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 P2RF-05-E	PFP-100N or PFP-50N and
G2R-2-S□□ (2-pole)	P2RF-08 P2RF-08-E	PFP-M end plate PFP-S (optional spacer)

**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](http://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 10 A at 30 VDC	7.5 A at 250 VAC 5 A at 30 VDC	5 A at 250 VAC 5 A at 30 VDC	2 A at 250 VAC 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 16 A at 30 VDC	8 A at 250 VAC 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 5 A at 30 VDC	2 A at 250 VAC 3 A at 30 VDC	3 A at 250 VAC 3 A at 30 VDC	1 A at 250 VAC 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 5 A at 30 VDC	3.50 A at 250 VAC 2.50 A at 30 VDC	3 A at 250 VAC 3 A at 30 VDC	1.50 A at 250 VAC 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 ( $\Omega$ )	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (mW)
			Armature OFF	Armature ON				
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 ( $\Omega$ )	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (mW)
			Armature OFF	Armature ON				
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 ( $\Omega$ )	Coil inductance (ref. value) (H)		Pick-up voltage	Dropout voltage	Maximum voltage	Power consumption (mW)
			Armature OFF	Armature ON				
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				