

# PCB Power Relay – G2R

## High-sensitivity Relays

<b>Rated voltage</b>	5 VDC	6 VDC	12 VDC	24 VDC	48 VDC
<b>Rated current (50/60Hz) (see Note. 1)</b>	71.4 mA	60 mA	30 mA	15 mA	7.5 mA
<b>Coil resistance (see Note. 1)</b>	70 Ω	100 Ω	400 Ω	1,600 Ω	6,400 Ω
<b>Coil inductance (H) (ref. value)</b>	<b>Armature OFF</b>	0.37	0.53	2.14	7.80
	<b>Armature ON</b>	0.75	1.07	4.27	15.60
<b>Must operate voltage</b>	70% max. of rated voltage				
<b>Must release voltage</b>	15% min. of rated voltage				
<b>Max. voltage</b>	170% of rated voltage (at 23°C)				
<b>Power consumption</b>	Approx. 0.36 W				

- Note:** 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of  $+15\%$ / $-20\%$  (AC rated current) or  $\pm 10\%$  (DC coil resistance)  
 2. Operating characteristics are measured at a coil temperature of 23°C  
 3. Depending on the type of relay, some relays do not have coil specifications. Contact your Omron representative for more details.

## Double-winding Latching Relays

<b>Rated voltage</b>	5 VDC	6 VDC	12 VDC	24 VDC		
<b>Set Coil</b>	<b>Rated current (see note 1.)</b>	167 mA	138 mA	70.6 mA	34.6 mA	
	<b>Coil resistance (see note 1.)</b>	30 Ω	43.5 Ω	170 Ω	694 Ω	
	<b>Coil inductance (H) (ref. value)</b>	<b>Armature OFF</b>	0.073	0.104	0.42	1.74
		<b>Armature ON</b>	0.146	0.208	0.83	3.43
<b>Reset Coil</b>	<b>Rated current</b>	119 mA	100 mA	50 mA	25 mA	
	<b>Coil resistance</b>	42 Ω	60 Ω	240 Ω	960 Ω	
	<b>Coil inductance (H) (ref. value)</b>	<b>Armature OFF</b>	0.003	0.005	0.018	0.079
		<b>Armature ON</b>	0.006	0.009	0.036	0.148
<b>Must set voltage</b>	70% max. of rated voltage					
<b>Must reset voltage</b>	70% max. of rated voltage					
<b>Max. voltage</b>	140% of rated voltage (at 23°C)					
<b>Power consumption</b>	Set coil: Approx. 850 mW; Reset coil: Approx. 600 mW					

- Note:** 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of  $\pm 10\%$ .  
 2. Operating characteristics are measured at a coil temperature of 23°C.

## ■ Contact Ratings

PCB/Flux Protection, Plug-in, Quick-connect Terminal Relays

Item	General-purpose, quick-connect terminal				High-capacity	
<b>Number of poles</b>	1 pole		2 poles		1 pole	
<b>Load</b>	Resistive load ( $\cos\varphi = 1$ )	Inductive load ( $\cos\varphi = 0.4$ ; L/R = 7 ms)	Resistive load ( $\cos\varphi = 1$ )	Inductive load ( $\cos\varphi = 0.4$ ; L/R = 7 ms)	Resistive load ( $\cos\varphi = 1$ )	Inductive load ( $\cos\varphi = 0.4$ ; L/R = 7 ms)
<b>Rated Load</b>	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	16 A at 250 VAC; 16 A at 30 VDC	8 A at 250 VAC; 8 A at 30 VDC
<b>Contact material</b>	AgSnIn					
<b>Rated carry current</b>	10 A		5 A		16 A	
<b>Max. switching voltage</b>	380 VAC, 125 VDC		380 VAC, 125 VDC		380 VAC, 125 VDC	
<b>Max. switching current</b>	10 A		5 A		16 A	
<b>Max. switching power</b>	2,500 VA, 300 W	1,875 VA, 150 W	1,250 VA, 150 W	500 VA, 90 W	4,000 VA, 480 W	2,000 VA, 240 W
<b>Failure rate (reference value)</b>	100 mA at 5 VDC		10 mA at 5 VDC		100 mA at 5 VDC	

Note: 1. P level:  $\lambda_{60} = 0.1 \times 10^{-9}$ /operation.

PCB/Flux Protection Relays

Item	Bifurcated contacts		High-sensitivity			
<b>Number of poles</b>	1 pole		1 pole		2 poles	
<b>Load</b>	Resistive load ( $\cos\varphi = 1$ )	Inductive load ( $\cos\varphi = 0.4$ ; L/R = 7 ms)	Resistive load ( $\cos\varphi = 1$ )	Inductive load ( $\cos\varphi = 0.4$ ; L/R = 7 ms)	Resistive load ( $\cos\varphi = 1$ )	Inductive load ( $\cos\varphi = 0.4$ ; L/R = 7 ms)
<b>Rated Load</b>	5 A at 250 VAC; 5 A at 30 VDC	2 A at 250 VAC; 3 A at 30 VDC	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; 1.5 A at 30 VDC
<b>Rated carry current</b>	5 A		5 A		3 A	
<b>Max. switching voltage</b>	380 VAC, 125 VDC		380 VAC, 125 VDC		380 VAC, 125 VDC	
<b>Max. switching current</b>	5 A		5 A		3 A	
<b>Max. switching power</b>	1,250 VA, 150 W	500 VA, 90 W	1,250 VA, 150 W	500 VA, 90 W	750 VA, 90 W	250 VA, 45 W
<b>Failure rate (reference value)</b>	1 mA at 5 VDC		100 mA at 5 VDC		10 mA at 5 VDC	

Note: P level:  $\lambda_{60} = 0.1 \times 10^{-6}$ /operation.