

PCB Power Relay – G2R

High-sensitivity Relays

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

Rated voltage	5 VDC	6 VDC	12 VDC	24 VDC	
Set Coil	Rated current (see note 1.)	167 mA	138 mA	70.6 mA	
	Coil resistance (see note 1.)	30 Ω	43.5 Ω	170 Ω	
	Coil inductance (H) (ref. value)	Armature OFF	0.073	0.104	0.42
		Armature ON	0.146	0.208	0.83
Reset Coil	Rated current	119 mA	100 mA	50 mA	
	Coil resistance	42 Ω	60 Ω	240 Ω	
	Coil inductance (H) (ref. value)	Armature OFF	0.003	0.005	0.018
		Armature ON	0.006	0.009	0.036
Must set voltage	70% max. of rated voltage				
Must reset voltage	70% max. of rated voltage				
Max. voltage	140% of rated voltage (at 23°C)				
Power consumption	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	
Number of poles	1 pole		2 poles		1 pole	
Load	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)
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	16 A at 250 VAC; 16 A at 30 VDC	8 A at 250 VAC; 8 A at 30 VDC
Contact material	AgSnIn					
Rated carry current	10 A		5 A		16 A	
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC		380 VAC, 125 VDC	
Max. switching current	10 A		5 A		16 A	
Max. switching power	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
Failure rate (reference value)	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			
Number of poles	1 pole		1 pole		2 poles	
Load	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)
Rated Load	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
Rated carry current	5 A		5 A		3 A	
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC		380 VAC, 125 VDC	
Max. switching current	5 A		5 A		3 A	
Max. switching power	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
Failure rate (reference value)	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.