



RP II/1 series

8-16 Amp, 1 Pole PC Board Relay

UL File E214025



12A Version Only

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- 1 Form A (SPST-NO) or 1 Form C (SPDT).
- 8 and 12 amp models available with 3.5 or 5mm pin spacing.
- 16 amp models available with 5mm pin spacing.
- 4kV/8mm contact-to-coil.
- Sockets available.

Environmental Data

Temperature Range:

Operating: -40°C to +70°C.

Vibration (30-300 Hz.): N/O: >10g; N/C: 2g.

Shock (destructive): 100g.

Contact Data

Arrangements: 1 Form A (SPST-NO) and 1 Form C (SPDT), single contact.

Material: Silver-cadmium oxide or silver-nickel 0.15.

Expected Mechanical Life: 30 million operations.

Ratings:

Current:	8A	12A	16A
Voltage:	250VAC	250VAC	250VAC
Power (breaking):	2,000VA	3,000VA	4,000VA
Voltage (breaking):	400VAC	400VAC	400VAC
Make Current:	16A	20A	25A
Material:	AgNi 0.15	AgCdO	AgCdO

Load/Life

Type	Load	Life (Ops.)
RP410	12A, 250VAC, $\cos\phi = 1$, 1200/h, 40% duty cycle	110,000
RP410	9.1A, 220VAC, $\cos\phi = 1$, 360/h, 15% duty cycle	200,000
RP418	3.4A ON, 0.42A OFF, 220VAC, $\cos\phi = 0.6$	> 1.1 million
RP411	8A, 250VAC, $\cos\phi = 1$, 50% duty cycle	100,000
RP412	8A, 250VAC, $\cos\phi = 1$, 50% duty cycle	100,000
RP330	18.2A, 250VAC, $\cos\phi = 1$, 600/h, 15% duty cycle	110,000
RP330	96A ON, 16A OFF, 250VAC, $\cos\phi = 0.6$, 450/h	>30,000

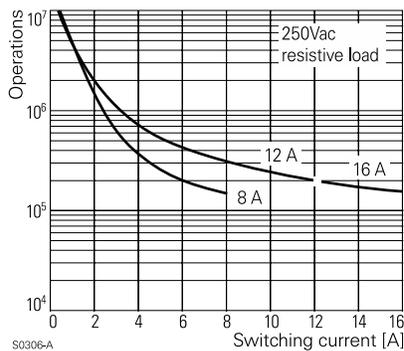
Mechanical Data

Termination: Printed circuit terminals.

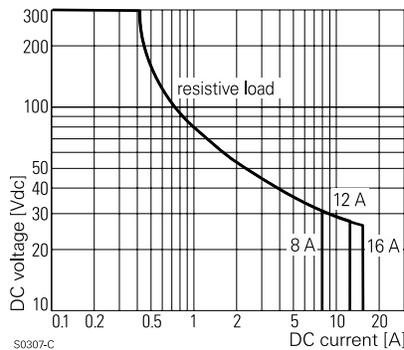
Enclosure: Flux-tight (RT II) plastic case or sealed (RT III) cover.

Weight: .63 oz. (18 g) approximately.

Contact Life



Max. DC Load Breaking Capacity



Initial Dielectric Strength

Between Open Contacts: 1,000Vrms

Between Coil and Contacts: 4,000Vrms.

Creepage/Clearance: 8/8mm.

Coil Data DC @ 20°C

Nominal Coil Power: 500mW.

Nominal Voltage VDC	DC Resistance in Ohms	Must Operate Voltage VDC	Drop-out Voltage VDC	Maximum Voltage VDC	Nominal Coil Current (mA)
5	54 ± 10%	3.5	0.5	9.0	92.6
6	68 ± 10%	4.2	0.6	10.8	88.2
12	270 ± 10%	8.4	1.2	21.6	44.4
24	1,100 ± 15%	16.8	2.4	43.2	21.8
48	4,400 ± 15%	33.6	4.8	86.4	10.9
60	6,540 ± 15%	42.0	6.0	108.0	9.2
110	23,100 ± 15%	77.0	11.0	198.0	4.8

Operate Data

Must Operate Voltage: See Coil Data table.

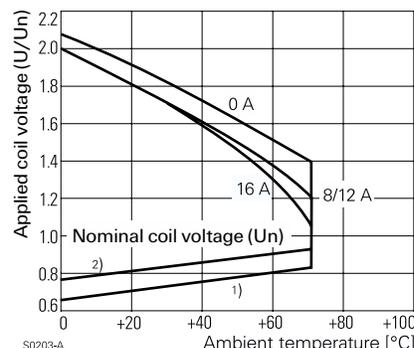
Operate Time (typical): 8 ms.

Release Time (typical): 2 ms.

Bounce Time (typical): N/O: 2 ms; N/C: 4 ms.

Switching Rate: 6,000 ops./hr. max. at rated load.

Coil Operating Range



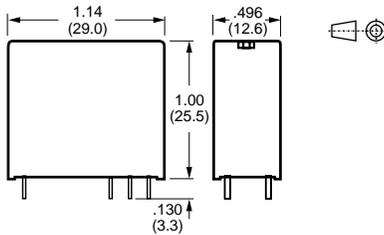
Ordering Information

Typical Part Number ▶				RP	4	1	0	012
1. Basic Series: RP = Printed circuit board relay.								
2. Version: 3 = 16A, flux tight. 4 = 8/12A, flux-tight. 7 = 16A, sealed. 8 = 8/12A, sealed.								
3. Contact Arrangement: 1 = 1 Form C (SPDT). 3 = 1 Form A (SPST-NO).								
4. Contact Material and Pin Spacing: 0 = Silver-cadmium oxide, 16A or 12A, 5 mm pin spacing. 2 = Silver-nickel 0.15, 8A, 3.5 mm pin spacing. 1 = Silver-nickel 0.15, 8A, 5 mm pin spacing. 8 = Silver-cadmium oxide, 12A, 3.5 mm pin spacing.								
5. Coil Voltage: 005 = 5VDC 012 = 12VDC 048 = 48VDC 110 = 110VDC 006 = 6VDC 024 = 24VDC 060 = 60VDC								

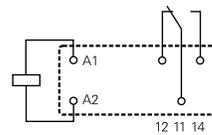
Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

None at present.

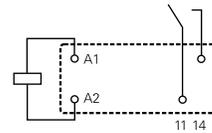
Outline Dimensions



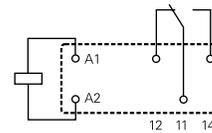
Wiring Diagrams (Bottom Views)



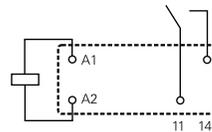
1 Form C, 8/12A, 3.5 mm



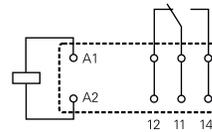
1 Form A, 8/12A, 3.5 mm



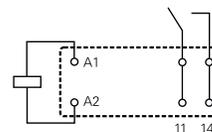
1 Form C, 8/12A, 5 mm



1 Form A, 8/12A, 5 mm

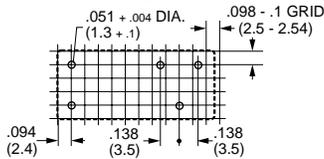


1 Form C, 16A, 5 mm

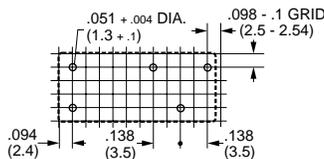


1 Form A, 16A, 5 mm

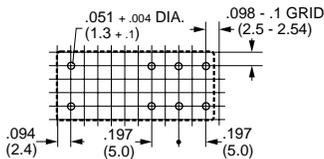
PC Board Layouts (Bottom Views)



8/12A, 3.5 mm Pin Spacing



8/12A, 5 mm Pin Spacing



16A, 5 mm Pin Spacing