



RP 3 SL series

16 Amp, 1 Pole PC Board Relay for High Inrush Loads

US File E214025



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).
- 16 amp models handles up to 120A peak inrush current.
- 4kV/8mm contact-to-coil.
- Latching and non-latching types.

Contact Data

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

Material: Silver-tin oxide.

Expected Mechanical Life: 30 million operations.

Ratings:

Current: 16A

Voltage: 250VAC

Power (breaking): 4,000VA

Voltage (breaking): 440VAC

Make Current (max 4s at 10% duty cycle): 25A

Peak Inrush Current: 120A

Load/Life

12A, 250VAC, $\cos\phi = 1$; 300,000 ops.

TV8; 25,000 ops.

2,500W, 230VAC, Halogen lamps; > 10,000 ops.

1,000W, 250VAC, Incandescent lamps; 230,000 ops.

3,000W, 250VAC, Incandescent lamps; 36,000 ops.

1,500VA, Fluorescent lamps, 163 μ F; 10,000 ops.

Initial Dielectric Strength

Between Open Contacts: 2,000Vrms

Between Coil and Contacts: 4,000Vrms.

Creepage/Clearance: 8/8mm.

Coil Data DC @ 20°C

Nominal Coil Power: Non-latching: 500mW.

Single-coil latching: 1.2 - 1.4W.

Dual-coil latching: 1.2 - 1.5W.

Nominal Voltage VDC	DC Resistance in Ohms	Must Operate Voltage VDC	Drop-out Voltage VDC	Maximum Voltage VDC	Nominal Coil Current (mA)
Non-Latching Models					
12	270 \pm 10%	9.0	1.2	21.6	44.4
24	1,100 \pm 15%	18.0	2.4	43.2	21.8
48	4,400 \pm 15%	36.0	4.8	86.4	10.9
60	6,540 \pm 15%	45.0	6.0	108.0	9.2
Nominal Voltage VDC	DC Resistance in Ohms	Must Operate Voltage VDC	Reset Voltage VDC	Reset R1 Ohms / W	Nominal Coil Current (mA)
Single-coil Latching Models – Reset Voltage 70-110% of Nom.					
5	21 \pm 10%	3.7	3.6	39 / 0.5	238.1
12	115 \pm 10%	9.0	8.7	220 / 0.5	104.3
24	460 \pm 10%	18.0	16.7	820 / 0.5	52.2
Dual-coil Latching Models – Reset Voltage 75-120% of Nom.					
12	105 \pm 15%	9.0	9.0	–	114.3
24	460 \pm 15%	18.0	18.0	–	52.2

Operate Data

Must Operate Voltage: See Coil Data table.

Operate / Release Time (Non-latching, typical): 8 ms / 2 ms.

Operate / Reset Time (Latching, typical): 6 ms / 2 ms.

Bounce Time (typical): 2 ms.

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

Environmental Data

Temperature Range:

Operating: -40°C to +70°C.

Vibration (30-300 Hz.): 20g.

Shock (destructive): 100g.

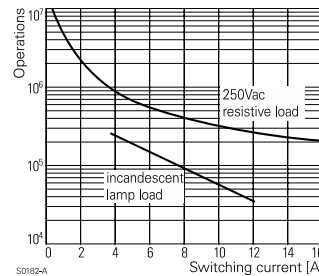
Mechanical Data

Termination: Printed circuit terminals.

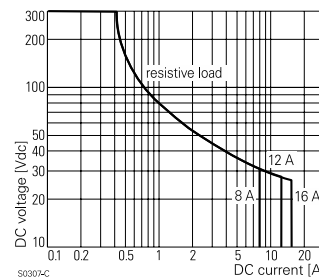
Enclosure: Flux-tight (RT II) plastic case or sealed (RT III) cover.

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

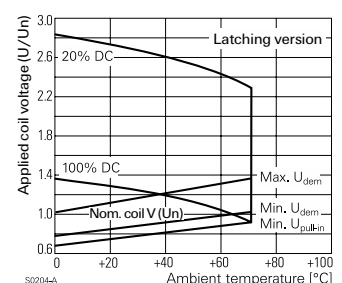
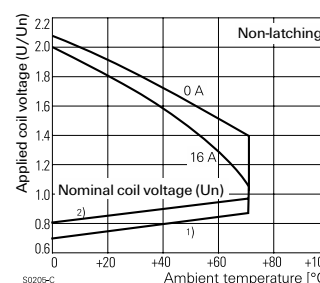
Contact Life



Max. DC Load Breaking Capacity



Coil Operating Range



Non-Latching Models

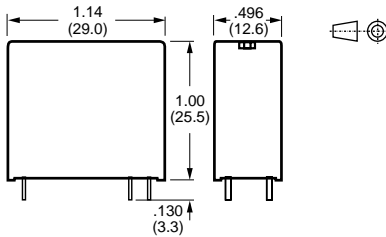
Latching Models

Ordering Information

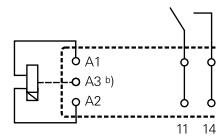
	Typical Part Number ▶	RP	3	SL	F12															
<p>1. Basic Series: RP = Printed circuit board relay.</p> <p>2. Version: 3 = Flux tight. 7 = Sealed.</p> <p>3. Contact Arrangement / Material: SL = 1 Form A (SPST-NO), Silver-tin oxide.</p> <p>4. Coil Voltage:</p> <table border="0" style="width: 100%;"> <tr> <td>Non-Latching Models:</td> <td>012 = 12VDC</td> <td>024 = 24VDC</td> <td>048 = 48VDC</td> <td>060 = 60VDC</td> </tr> <tr> <td>Single-Coil Latching Models:</td> <td>A05 = 5VDC</td> <td>A12 = 12VDC</td> <td>A24 = 24VDC</td> <td></td> </tr> <tr> <td>Dual-Coil Latching Models:</td> <td>F12 = 12VDC</td> <td>F24 = 24VDC</td> <td></td> <td></td> </tr> </table>						Non-Latching Models:	012 = 12VDC	024 = 24VDC	048 = 48VDC	060 = 60VDC	Single-Coil Latching Models:	A05 = 5VDC	A12 = 12VDC	A24 = 24VDC		Dual-Coil Latching Models:	F12 = 12VDC	F24 = 24VDC		
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Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.
TBD

Outline Dimensions



Wiring Diagram (Bottom View)

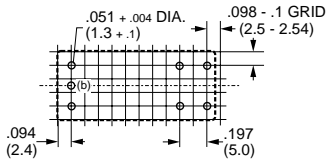


Latching Versions:
Contact position shown results during or after Coil energization with reset voltage.

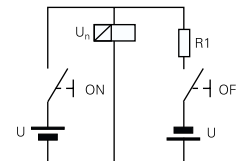
Two-Coil Versions:
Operate: A2, A3
Reset A1, A3

Terminal b) only present on two-coil latching models

PC Board Layout (Bottom View)



Circuit Diagram for Single-Coil Latching Model



50329-A

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