RP 3 SL series

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

c UL us File E214025

VDE KEMA KEUR

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-tim 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, cosφ = 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, 163µF; 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 ± 10%	9.0	1.2	21.6	44.4
24	1,100 ± 15%	18.0	2.4	43.2	21.8
48	4,400 ± 15%	36.0	4.8	86.4	10.9
60	6,540 ± 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 ± 10%	3.7	3.6	39 / 0.5	238.1
12	115 ± 10%	9.0	8.7	220 / 0.5	104.3
24	460 ± 10%	18.0	16.7	820 / 0.5	52.2
Dual-coil Latching Models – Reset Voltage 75-120% of Nom.					
12	105 ± 15%	9.0	9.0	–	114.3
24	460 ± 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.

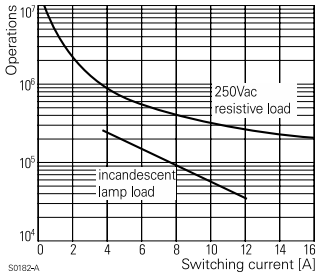
Environmental Data

Temperature Range:
Operating: -40°C to +70°C.
Vibration (30-300 Hz.): 20g.
Shock (destructive): 100g.

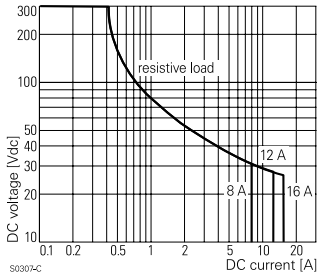
Mechanical Data

Termination: Printed circuit terminals.
Enclosure: Flux-tight (RT II) plastic case or sealed (RT III) cover.
Weight: .63 oz. (18 g) approximately.

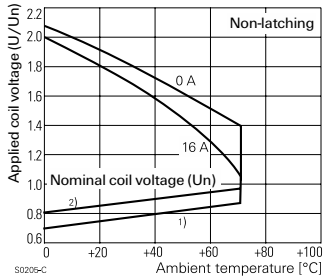
Contact Life



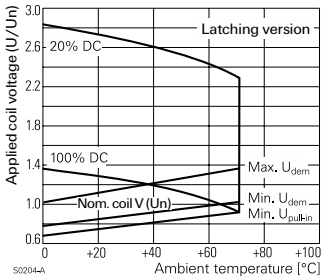
Max. DC Load Breaking Capacity



Coil Operating Range



Non-Latching Models



Latching Models

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.

www.tycoelectronics.com
Technical support:
Refer to inside back cover.

Ordering Information

Typical Part Number ▶	**RP**	**3**	**SL**	**F12**

1. Basic Series:
RP = Printed circuit board relay.

2. Version:
3 = Flux tight. 7 = Sealed.

3. Contact Arrangement / Material:
SL = 1 Form A (SPST-NO), Silver-tin oxide.

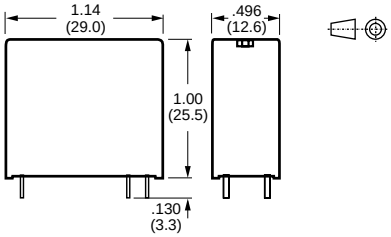
4. Coil Voltage:

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		

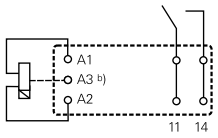
Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.

TBD

Outline Dimensions



Wiring Diagram (Bottom View)

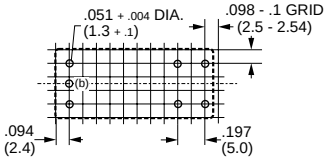


Terminal b) only present on two-coil latching models

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

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

PC Board Layout (Bottom View)



Circuit Diagram for Single-Coil Latching Model