



# RT series (Latching) 16 Amp Miniature Printed Circuit Board Relay

UL File E38891

NR 6106

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

- Latching relay with 1 or 2 coils.
- SPDT (16A) and DPDT (8A) contact arrangements.
- Flux tight enclosure.
- Meets VDE 10mm spacing, 5kV dielectric, coil to contacts.
- Conforms to UL 508, 1873 and 353.
- UL Class F (155°C) coil construction
- Schrack brand

## Contact Data

**Arrangements:** 1 Form C (SPDT) Wiring Diagram Code 3.  
2 Form C (DPDT) Wiring Diagram Code 5.

**Material:** Silver-nickel 90/10.

**Minimum Load:** 12V/100mA.

**Expected Mechanical Life:** 5 million operations, 1 pole.  
2 million operations, 2 pole.

**Designed to meet UL/CSA/VDE ratings with relay properly vented. Remove vent nib after soldering and cleaning.**

### UL/CSA ratings @ 70°C:

Code	NO/NC Load	Type	Operations
3	16A/8A @ 240VAC	GP	6K
	8A @ 28VDC	Resistive	30K
	1/2 HP @ 120VAC*	Motor	6K
	1HP @ 240VAC*	Motor	6K
	48 LRA, 8 FLA @ 240VAC B300	Motor Pilot Duty	30K 6K
5	8A @ 240VAC	Resistive	30K
	8A @ 28VDC	Resistive/GP	30K
	1/2 HP @ 240VAC	Motor	6K
	1/4 HP @ 120VAC	Motor	6K
	B300	Pilot Duty	6K

\* Form A only

### VDE Ratings @ 70°C:

Code	NO/NC Load	Type	Operations
3	16A @ 250VAC	Resistive	10K
	8A @ 250VAC	Resistive	30K
5	8A @ 250VAC	Resistive	30K
	8A @ 250VAC	Resistive	100K

## Initial Dielectric Strength

**Between Open Contacts:** >1,000VAC (1 minute).

**Between Poles (code 5):** >2,500VAC (1 minute).

**Between Coil and Contacts:** >5,000VAC (1 minute).

**Creepage/Clearance, Coil to Contact:** 10/10mm.

## Coil Data @ 20°C

**Voltage:** 5 to 24VDC\*, 1 coil.

3 to 24VDC\*, 2 coil.

**Nominal Power @ 25°C:** 400mW, 1 coil.  
600mW, 2 coil.

**Duty Cycle:** Continuous.

**Initial Insulation Resistance:** 10,000 megohms, min., at 20°C, 500VDC and 50% rel. humidity.

**Coil Construction:** UL Class F (155°C).

\* Other coil voltages upon request.

## 1 Coil Data

Nominal Voltage VDC	DC Resistance in Ohms ±10%	Set Voltage VDC	Reset Voltage VDC	Nominal Coil Current (mA)
05	62	3.5—6.0	2.75—6.0	80.0
06	90	4.2—7.2	3.30—7.2	66.7
12	360	8.4—14.4	6.60—14.4	33.3
24	1,440	16.8—28.8	13.20—28.8	16.7

## 2 Coil Data

Nominal Voltage VDC	DC Resistance in Ohms ±10%	Set Voltage VDC	Reset Voltage VDC	Nominal Coil Current (mA)
05	42	3.5—7.5	2.75—4.5	120.0
06	55	4.2—9.0	3.30—9.0	108.0
12	240	8.4—18.0	6.60—18.0	50.0
24	886	16.8—36.0	13.20—36.0	27.0

## Operate Data @ 20°C

**Must Operate Voltage:** See coil data.

**Operate Time (Excluding Bounce):** 5 ms, typ., at nom. voltage.

**Release Time (Excluding Bounce):** 4 ms, typ., at nom. voltage.

**Max. Switching Rate:** 360 ops. at rated load.

## Environmental Data

**Temperature Range:**

**Storage:** -40°C to +105°C.

**Operating:** -40°C to +70°C at rated current.

**Vibration:** 30 - 500 Hz:

N/C opens at >3g and changes from reset to set at >5g;

**Shock:** N/C opens at >6g and changes from reset to set at >15g.;

## Mechanical Data

**Termination:** Printed circuit terminals.

**Enclosures:** RT 3, 4: Flux-tight, top vented, plastic case.

**Weight:** 0.46 oz. (13g) approximately.

Ordering Information (Latching Model)

Typical Part Number ▶

RT

3

2

4

A05

1. Basic Series:

RT = Miniature, printed circuit board relay.

2. Enclosure:

3 = 1 pole 16A, Pinning 5mm, flux-tight (Code 3).  
4 = 2 pole 8A, Pinning 5mm, flux-tight (Code 5).

3. Contact Arrangement:

1 = 1 Form C (SPDT) (Requires wiring diagram code 3.)  
2 = 2 Form C (DPDT) (Requires wiring diagram code 5.)

4. Contact Material:

4 = Silver-nickel 90/10.

5. Coil Voltage:

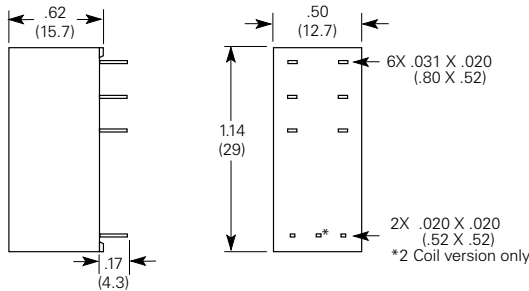
1 Coil	2 Coil	Voltage
A05	F05	= 5VDC
A06	F06	= 6VDC
A12	F12	= 12VDC
A24	F24	= 24VDC

Note: All latching model RT part numbers are Schrack brand, are orange in color and have UL Class F (155°C) coil construction.

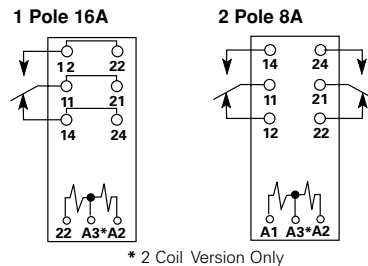
Our authorized distributors are more likely to stock the following items for immediate delivery.

None at present.

Outline Dimensions



Wiring Diagrams (Bottom View)



Code 3

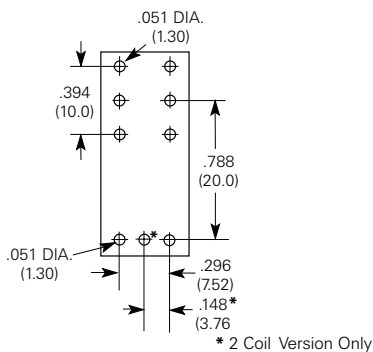
Code 5

Coil Terminals	1 Coil		2 Coils		
	A1	A2	A1	A3	A2
Operate	+	-		+	-
Reset	-	+	-	+	

Contact position not defined at delivery.

PC Board Layout (Bottom View)

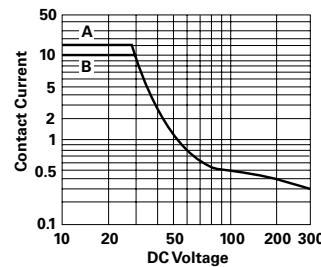
1 Pole 16A  
2 Pole 8A  
5mm



Code 3 & 5

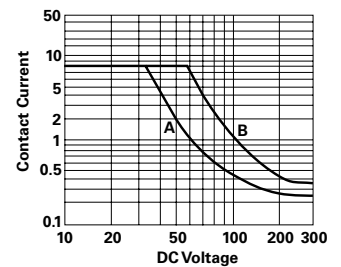
Breaking Capacity

1 Pole



A: 16A Version.  
B: 12A Version.

2 Pole



A: 1 Contact.  
B: 2 Contacts in series.