

# PCK series

## Slim 16 Amp Miniature Power PC Board Relay

Appliances, HVAC, Office Machines.

UL File No. E82292

CSA File No. LR48471



Users should thoroughly review the technical data before selecting a product part number. It is recommended that user 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

- Slim outline to save board space.
- 1 Form A contact arrangement.
- Quick connect terminal type.
- Meet 5,000V dielectric voltage between coil and contacts.
- Meet 10,000V surge voltage between coil and contacts.

### Contact Data @20°C

**Arrangements:** 1 Form A (SPST-NO) .

**Material:** AgSnO.

**Max. Switching Rate:** 300ops./ min. (no load).  
20ops./ min. (rated load).

**Expected Mechanical Life:** 2 million ops (no load).

**Expected Electrical Life:** 100,000 ops (rated load).

**Minimum Load:** 100mA @5VDC.

**Initial Contact Resistance:** 100 milliohms @1A, 6VDC.

### Contact Ratings

**Ratings:** 16A @250VAC resistive.

16A @24VDC resistive.

**Max. Switched Voltage:** AC: 277V.  
DC: 24V.

**Max. Switched Current:** 16A.

**Max. Switched Power:** 4,000VA, 385W.

### Initial Dielectric Strength

**Between Open Contacts:** 1,000VAC, 50/60 Hz. (1 min.).

**Between Contacts and Coil:** 5,000VAC, 50/60 Hz. (1 min.).

**Surge Voltage Between Coil and Contacts:** 10,000V (1.2/50µs).

### Initial Insulation Resistance

**Between Mutually Insulated Conductors:** 1,000Mohm @500VDC.

### Coil Data

**Voltage:** 5 to 24VDC.

**Duty Cycle:** Continuous.

**Nominal Power:** 500mW.

**Max. Coil Power:** 130% of nominal at 20°C.

### Coil Data @20°C

PCK				
Rated Coil Voltage (VDC)	Nominal Current (mA)	Coil Resistance (ohms) ± 10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)
5	100.0	50.0	3.75	0.25
6	83.3	72.0	4.50	0.30
9	55.6	162.0	6.75	0.45
12	41.7	288.0	9.00	0.60
18	27.8	648.0	13.50	0.90
24	20.9	1,150.0	18.00	1.20

### Operate Data @20°C

**Must Operate Voltage:** 75% of nominal voltage or less.

**Must Release Voltage:** 5% of nominal voltage or more.

**Operate Time:** 20ms max.

**Release Time:** 10ms max.

### Environmental Data

**Temperature Range:**

**Operating:** -30°C to +70°C.

**Vibration, Mechanical:** 10 to 55Hz., 1.5mm double amplitude.

**Operational:** 10 to 55Hz., 1.5mm double amplitude.

**Shock, Mechanical:** 1000m/s<sup>2</sup> (100G approximately).

**Operational:** 100m/s<sup>2</sup> (10G approximately).

**Operating Humidity:** 20 to 85% RH. (Non-condensing).

### Mechanical Data

**Termination:** Printed circuit terminals with quick connect terminals.

**Enclosure:** Vented (Flux-tight) plastic cover.

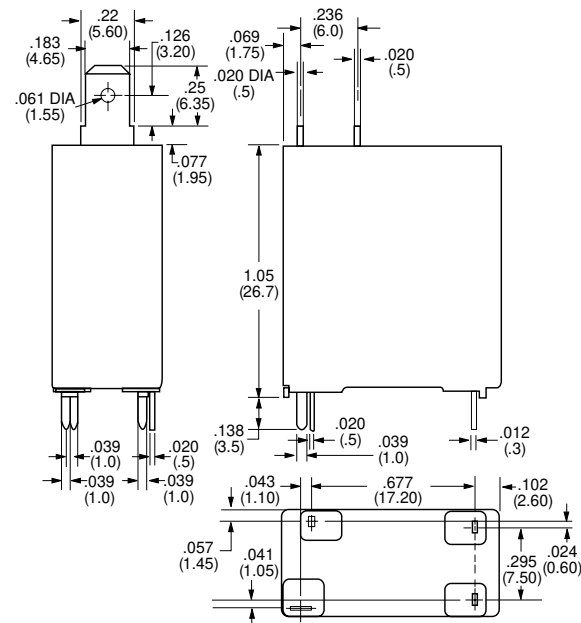
**Weight:** 0.46 oz (13g) approximately.

Ordering Information

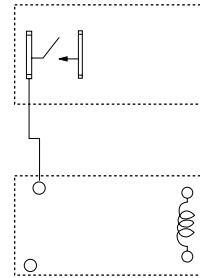
<b>Typical Part Number</b> ▶	<b>PCK</b>	<b>-1</b>	<b>12</b>	<b>D</b>	<b>2</b>	<b>,000</b>
<b>1. Basic Series:</b> PCK = 16A PC board terminals						
<b>2. Termination:</b> 1 = 1 pole						
<b>3. Coil Voltage:</b> 05 = 5VDC      09 = 9VDC      18 = 18VDC 06 = 06VDC      12 = 12VDC      24 = 24VDC						
<b>4. Coil Input:</b> D = Standard						
<b>5. Contact Material:</b> 2 = AgSnO						
<b>7. Suffix:</b> ,000 = Standard model      Other Suffix = Custom model						

Our authorized distributors are more likely to maintain the following items in stock for immediate delivery.  
None at present.

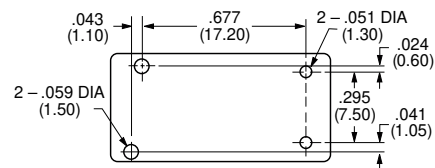
Outline Dimensions



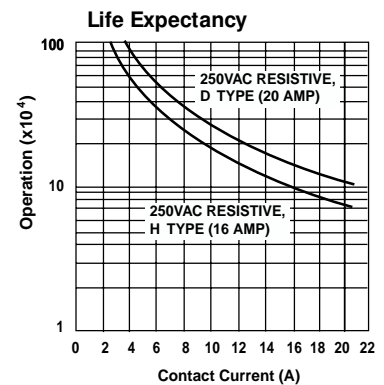
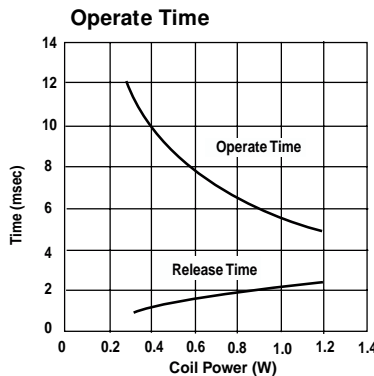
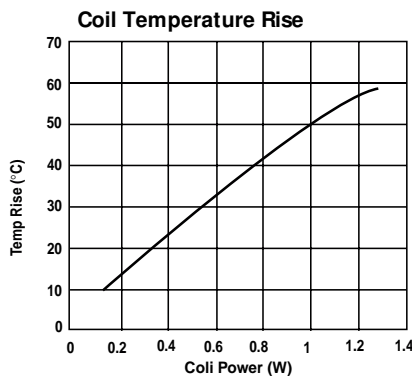
Wiring Diagram (Bottom View)



PC Board Layout (Bottom View)



Reference Data



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.