50 Amp Latching PCB Relay — PC10L-50



FEATURES

- Energy Saving Latching Operation
- 50 Amp Switching Capacity
- 5,000 Watt Lamp Load @ 240 VAC
- 5 HP @ 277 VAC Motor Load
- Max Inrush Current 200 Amp for 2 ms
- Single or Dual Coil
- Manual Switch On Top
- 39.0 x 25.0 x 15.0 mm Package Dimensions
- 5.0 mm Shorter than Completion's version
- RoHS Compliant

c UL us E93379

Load Type	Voltage	1 Form A (SPST-NO)
Resistive 6,000 Cycles	277 VAC	50 A
Incandescent Lamp 3,000 Cycles	240 VAC	5,000 W
Incandescent Lamp 3,000 Cycles	277 VAC	16 A
Electronic Ballast 6,000 Cycles	280 VAC	16 A
Motor Load 3,000	277 VAC	5 HP
UL APPROVALS		
General Purpose	277 VAC	50 A

CONTACT DATA

Maximum Switching Power		12,500 VA
Maximum Switching Voltage		440 VAC
Maximum Switching Current		50 A
Minimum Operating Contact Current		10 mA @ 6 VDC & 25ºC
		100 mA @ 6 VDC Over Operating Temp.
Material		$AgSnO_2$
Initial Contact Resistance		≤ 20mΩ Initial
Service Life	Mechanical	5 X 10^6 Operations
	Electrical	1 X 10^5 Operations

CHARACTERISTICS

Operate Time	≤ 15 ms
Release Time	≤ 15 ms
Insulation Resistance	1,000 MΩ min at 500 VDC
Dielectric Strength	50 Hz 4,000 V 1 min. Between Coil and Contact 50 Hz 1,500 V 1 min. Between Contacts
Shock Resistance	98 m/s² 11 ms Functional 980 m/s² 11 ms Survival
Power Consumption	Single Coil: 1.5 W: Double Coil: 2 X 3.0 W

Creep	8 mm
Terminal Strength	10 N
Vibration Resistance	10 - 55 Hz Double Amplitude 1.5 mm
Operating Temperature	- 40 to 70°C
Storage Temperature	- 40 to 125°C
Solderability	235 °C ± 2°C 3 sec ± 0.5 sec
Relative Humidity	85% at 40°C
Weight	25 grams

ORDERING INFORMATION

Example: PC10L-50 -1A -3 - Nil - D - R - X

Model: **PC10L-50**

Contact Form: **1A**

Coil Voltage: **3, 9, 12, 24, 48**

Enclosure: **Nil**: Dust Cover

Coil: **Nil**: Single Coil 1.5 W, **D**: Double Coil 2 X 3.0 W

Polarity: **Nil**: Standard, **R**: Reverse Polarity

RoHS Compliant: **-X**

Box Quantity: 1000 ; Inner Box 500

3220 Commander Drive, Suite 102 Carrollton, TX 75006
Sales: (972) 713-6272 (888) 997-3933 Fax: (972)735-0964
www.PickerComponents.com
e-mail: sales@pickercomponents.com

Dimensions are listed for reference purposes only.

Specifications and Availability subject to change without notice.

COIL DATA

Coil Voltage		Coil Power		Must Operate Voltage Max (VDC)
		Resistance (Ohms ± 10%)		
Rated	Maximum	Single Coil 1.5 Watts	Dual Coil 2 x 3.0 Watts	
6	7	24	12 + 12	4.8
9	10.6	54	27 + 27	7.2
12	14.4	96	48 + 48	9.6
24	28.8	384	192 + 192	19.2
48	56	1,536	768 + 768	38.4

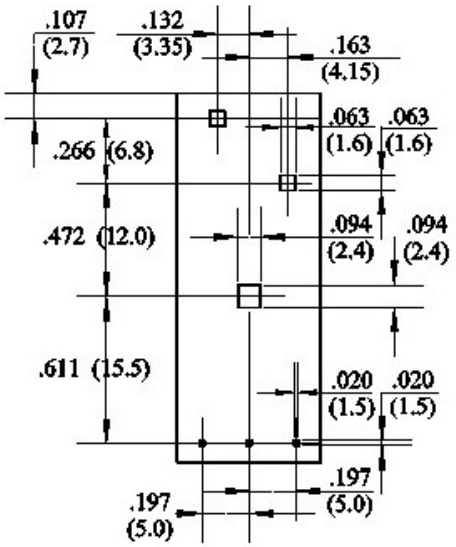
Pulse Magnitude ≥ 50 ms;

NOTES:

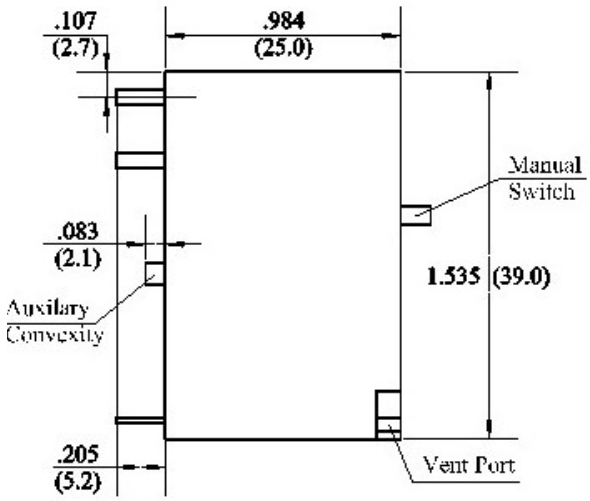
With the Dual Coil Version, the Latch and Reset Coils should not be pulsed at the same time for it is possible to set the relay into a magnetically neutral position. Coils should not be pulsed with less than the rated coil voltage and the pulse width should be a minimum of three times the specified operate time. If not, it is possible for the relay to settle in a magnetically neutral position.

Dimensions are in mm, Inches are listed for reference only.

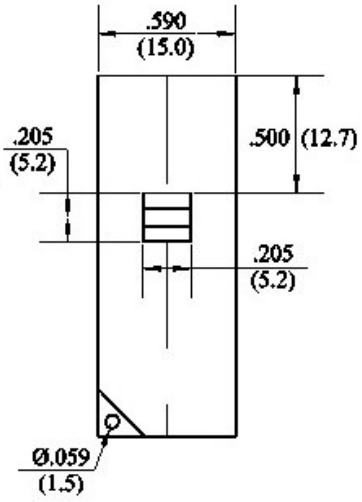
DIMENSIONS (inches/mm)



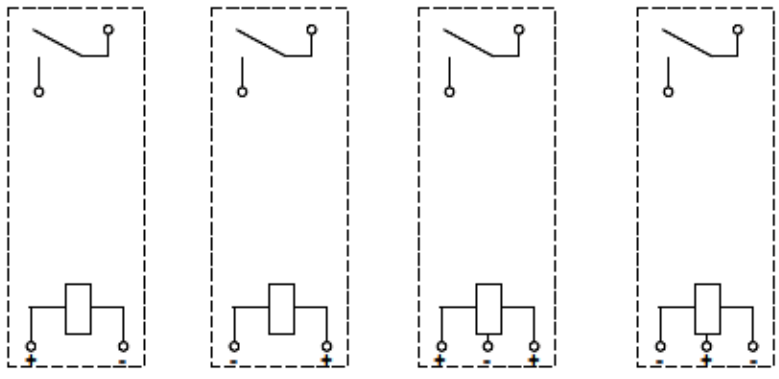
Bottom View of Relay



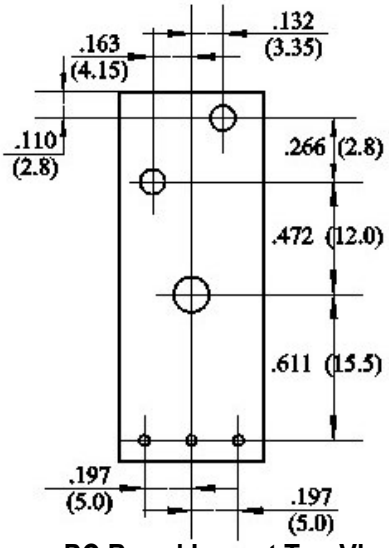
Side View of Relay



Top View of Relay



Wire Diagrams



PC Board Layout Top View

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