

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

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
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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/s ² 11 ms Functional
	980 m/s ² 11 ms Survival
Power Consumption	Single Coil: 1.5 W; Double Coil: 2 X 3.0 W

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 & 25°C	
	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

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

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

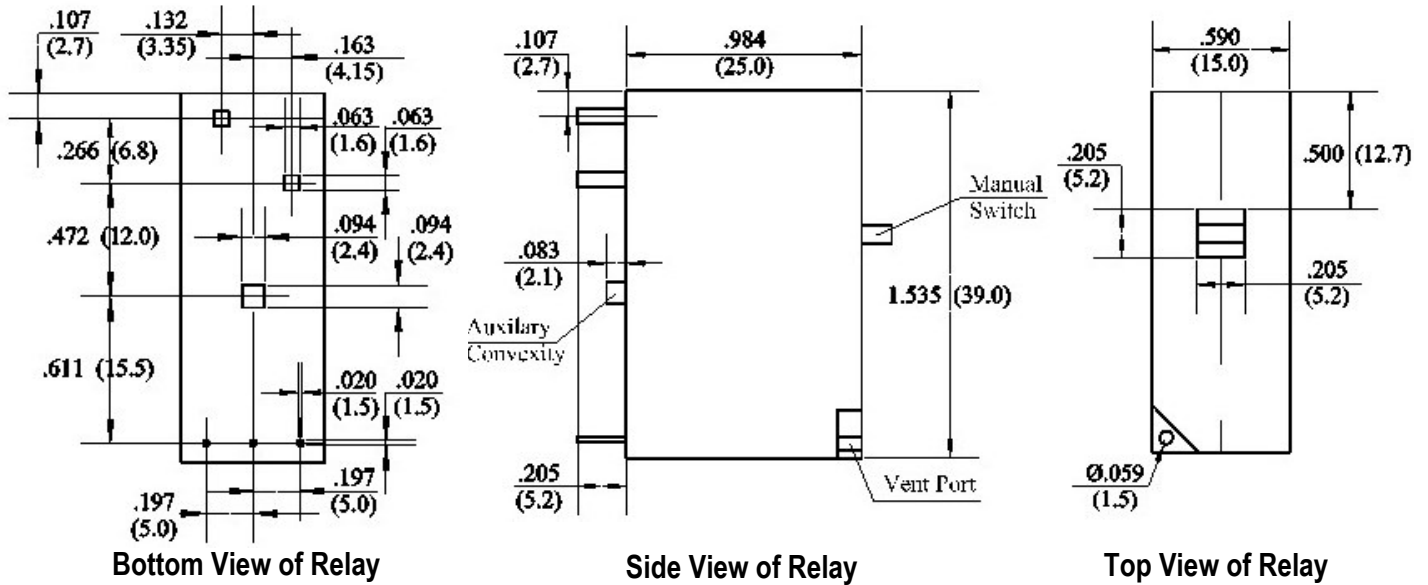
Pulse Magnitude ≥ 50 ms;

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.

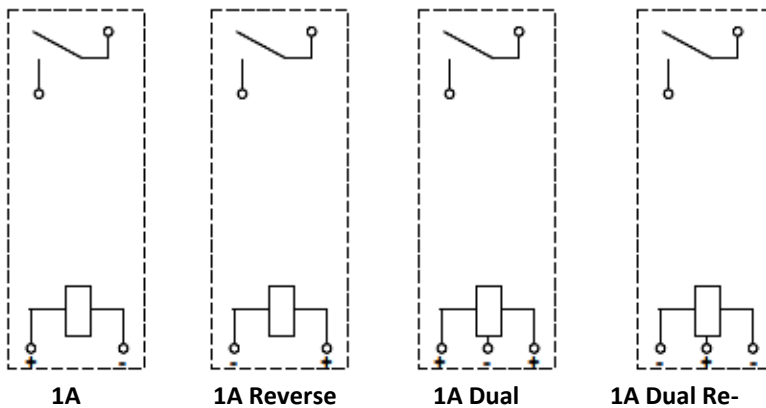
DIMENSIONS (inches/mm)



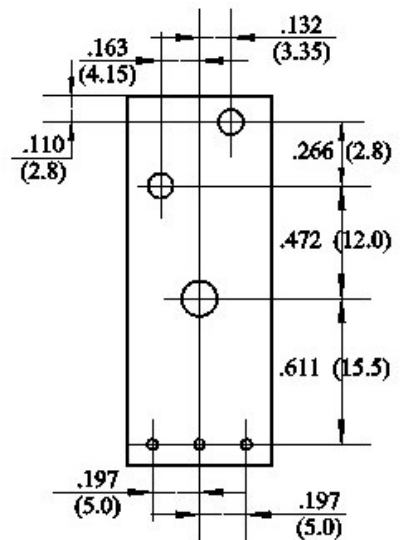
Bottom View of Relay

Side View of Relay

Top View of Relay



Wire Diagrams



PC Board Layout Top View