50 Amp Latching PCB Relays — PC10L

FEATURES

- Energy Saving Latching Operation
- 5,000 Watt Lamp Load @ 50 A/240 VAC
- 5 HP @ 50 A/277 VAC Motor Load
- Max Inrush Current 200 Amp for 2 ms
- Single or Dual Coil
- Manual Switch On Top or Sealed without Switch
- 39.0 x 25.0 x 15.0 mm Package Dimensions
- RoHS Compliant

UL / CUL Ratings

c UL us E86876

Resistive 100,000 Cycles @ 40°C	277 VAC	50 A

Factory Ratings

Load Type	Voltage	1 Form A (SPST-NO)
		50
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

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

CROSS REFERENCES

Hongfa: HFE10
Example: HFE10-3/12-HST-L2(257) Crosses to PC10L-50-1A-12SD-X

Panasonic: DJ-H (ADJH)
Example: ADJH21012 Crosses to PC10L-50-1A-12S-X

CONTACT DATA

Contact Rating		50 A
Maximum Switching Power		12,500 VA
Maximum Switching Voltage		440 VAC
Maximum Switching Current		50 A
Minimum Operating Contact Current (50 A Only)		10 mA @ 6 VDC & 25°C 100 mA @ 6 VDC
Material		$AgSnO_2$
Initial Contact Resistance		≤ 20mΩ Initial
Service Life	Mechanical	5 X 10^6 Operations
	Electrical	1 x 10^5; 5 x 10^4 (80 A) Operations

CHARACTERISTICS Continued

Creep	8 mm
Terminal Strength	10 N
Vibration Resistance	10 - 55 Hz Double Amplitude 1.5 mm
Operating Temperature	- 40°C to 70°C
Storage Temperature	- 40°C to 125°C
Solderability	260°C for 5 sec
Relative Humidity	85% at 40°C
Weight	25 g: 50 A; 30 g: 60 A & 80 A

ORDERING INFORMATION

Example: PC10L -50 -1A -12 C -R - X

Model: **PC10L**
Contact Rating: **50**: 50 A
Contact Form: **1A**
Coil Voltage: **6, 9, 12, 24, 48**
Enclosure: **Nil:** Dust Cover,
C: Sealed (No Manual Switch) (Non-Washable)
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

14680 James Road, Rogers, MN 55374 USA
Sales: (763) 535-2339
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

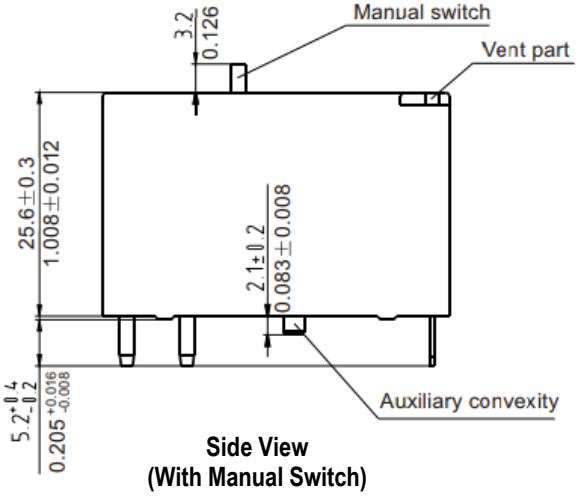
Coil Voltage		Coil Power		Must Operate Voltage Max (VDC)
		Resistance (Ohms ± 10%)		
Rated	Maximum	Single Coil 1.5 Watts	Dual Coil 2 x 3.0 Watts	
6	7	24	12 + 12	4.8
9	10.6	54	27 + 27	7.2
12	14.4	96	48 + 48	9.6
24	28.8	384	192 + 192	19.2
48	56	1,536	768 + 768	38.4

Pulse Magnitude ≥ 50 ms;

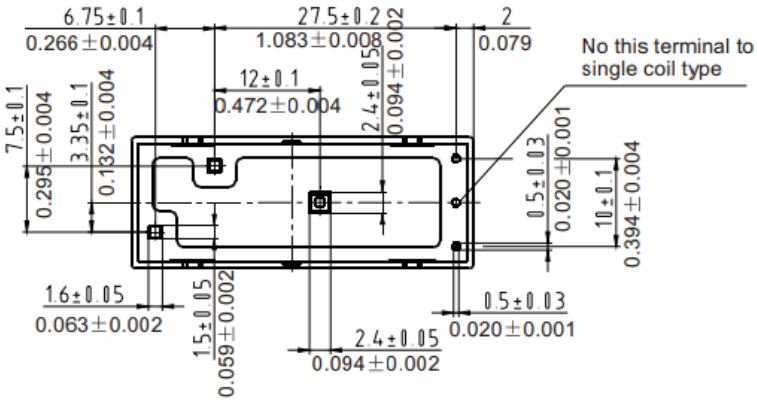
NOTES:

Switching voltages are for reference only and not to be used as design criteria.
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 (45 msec) the specified operate time. If not, it is possible for the relay to settle in a magnetically neutral position.

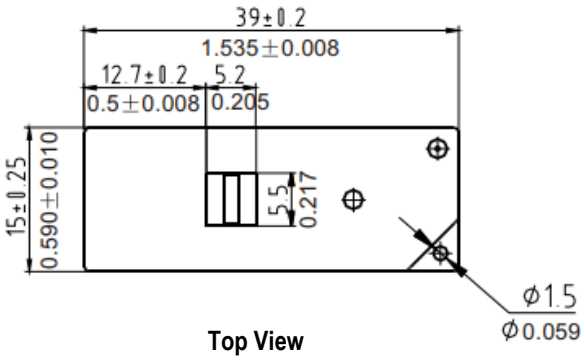
DIMENSIONS (mm/inch)



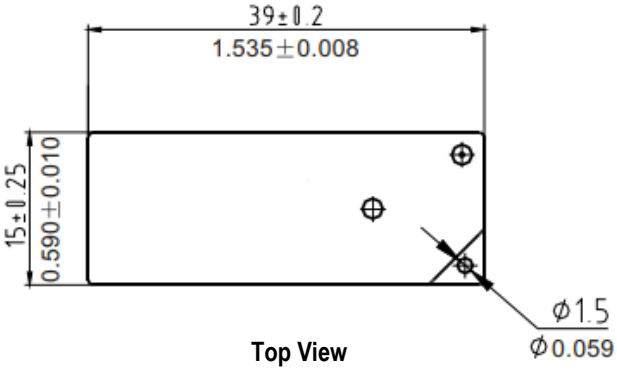
Side View (With Manual Switch)



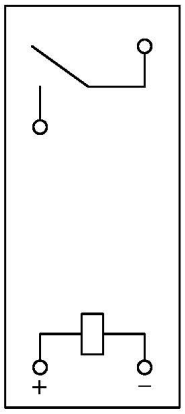
Bottom View



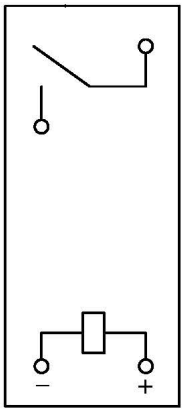
Top View (With Manual Switch)



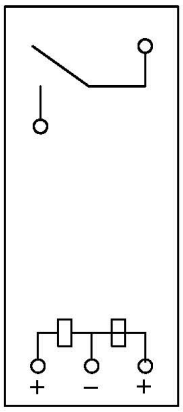
Top View (Without Manual Switch)



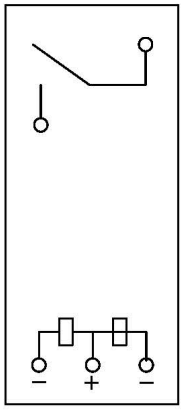
1A



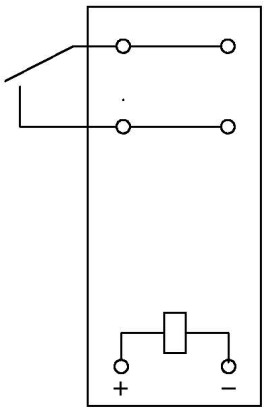
1A Reverse



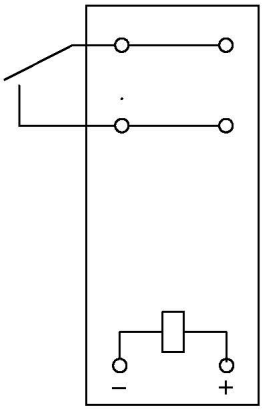
1A Dual



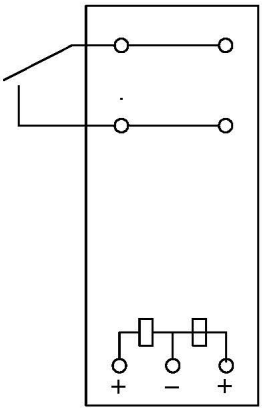
1A Dual Reverse



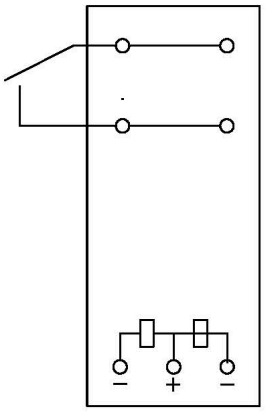
1AD



1AD Reverse



1AD Dual



1AD Dual Reverse

Wire Diagrams