

40 AMP Latching PCB Relay

PTRL



FEATURES

- Most popular power PCB relay
- 40 amp switching capacity
- 1.5 horsepower rating
- Single or Dual coil latching
- UL Class B insulation standard
- UL Class F insulation available
- 873 spacing standard
- Epoxy sealed, immersion cleanable
- **Lead Free & RoHS Compliant**



UL/CUR RATINGS

Contact	Normally Open Contact	Normally Closed Contact
Inductive Load	1.5 HP @ 125 & 250 VAC	1 HP @ 125 & 250 VAC
Resistive Load	40A @ 250VAC	40A @ 250VAC
Tungsten Load	TV-10	TV-10
General Purpose	40 A @ 250 VAC, 30 A @ 277 VAC All Contacts	

CONTACT DATA

Material	AgCdO (Silver Cadmium Oxide)	
Initial Contact Resistance	100 milliohms max @ 0.1A, 6VDC	
Service Life	Mechanical	1 X 10 ⁷ Operations
	Electrical	1 X 10 ⁵ Operations

CHARACTERISTICS

Operate Time	Less than 15 ms.
Required Pulse Duration	45 ms
Insulation Resistance	1,000 megohms min, at 500VDC, 50%RH
Dielectric Strength	1500 Vrms, 1 min. between open contacts 2500 Vrms, 1 min. between coil and contacts (4KW version available soon)
Shock Resistance	10 g, 11ms, functional; 100 g, destructive
Vibration Resistance	DA 1.5mm, 10-55 Hz
Power Consumption	Single Coil 0.9W, approx, Dual Coil 2X1.8W
Ambient Temperature Range	-40 degrees C to 85 degrees C operating for class B, -55 to 130 degrees C storage
Weight	30 grams approx.

ORDERING INFORMATION

Example:	PTRL	-1C	-12	S	F	L1
Model						
Contact Form						
1A, 1B, or 1C						
Coil Voltage						
Configuration						
S: Sealed plastic case; C: Dust Cover						
Insulation Material						
Nil: UL Class B; F: UL Class F						
Latching Mode						
L1: Single Coil; L2: Dual Coil						

Coil Data Single Coil

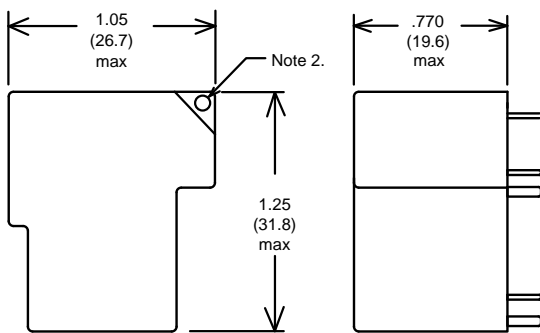
Coil Voltage	Resistance ohms ± 10%	Must Operate Voltage Max. (VDC)	Operating Voltage Range (VDC)	Minimum Pulse Duration (ms)
3	10	2.25	3-3.6	45
5	27	3.75	5-6	
6	40	4.50	6-7.2	
9	97	6.75	9-10.8	
12	155	9.00	12-14.4	
24	660	18.00	24-28.8	
48	2560	36.00	48-57.6	
110	10330	82.50	110-132	

Coil Data Dual Coil

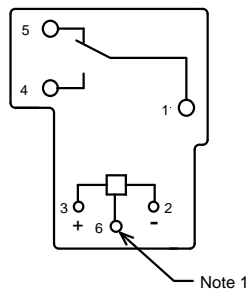
Coil Voltage	Resistance ohms ± 10%	Must Operate Voltage Max. (VDC)	Operating Voltage Range (VDC)	Minimum Pulse Duration (ms)
3	2X5	2.25	3-3.6	45
5	2X14	3.75	5-6	
6	2X20	4.50	6-7.2	
9	2X45	6.75	9-10.8	
12	2X80	9.00	12-14.4	
24	2X320	18.00	24-28.8	
48	2X1280	36.00	48-57.6	
110	2X6722	82.50	110-132	

Note: Custom coil voltages within the ranges shown are available on special order.

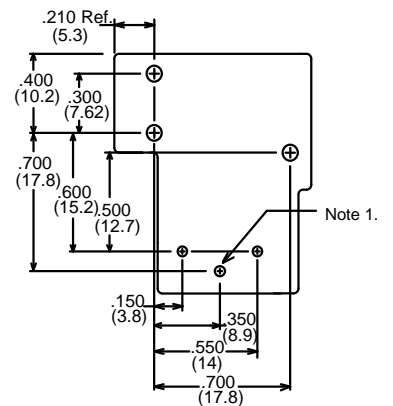
**Overall Dimensions
Inches (millimeters)**



Schematic



**Pin Layout
Bottom View**



- Notes:**
 1. This pin omitted for single Coil Latching version.
 2. Breakable nib may be removed after flux removal.

Tolerances ± .010 unless otherwise noted
 Holes for load term. .081 ± .005 Dia. (2.06 ± .13)
 Holes for Coil term. .043 ± .003 Dia. (1.09 ± .08)



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