

<b>40 AMP Power PCB Relay</b>	<b>PTRD</b>
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**FEATURES**

- Most popular power PCB relay
- Up to 40 amp switching capacity
- Up to 2 horsepower rating
- Gold flashed contacts available
- UL Class B insulation standard
- UL Class F insulation available
- Available with UL 873 spacing
- Epoxy sealed, immersion cleanable
- **Now available Lead Free & RoHS Compliant**



File # E93379

**UL/CUR RATINGS**

Load Type	Voltage	1 Form A (SPST-NO)	1 Form B (SPST-NC)	1 Form C (SPDT)	
				NO	NC
General Purpose	120 VAC	40 A	30 A	40 A	30 A
	250 VAC	40 A	30 A	40 A	30 A
	277 VAC	30 A	20 A	30 A	20 A
	30 VDC	40 A	30 A	40 A	30 A
Resistive ( 100,000 cycles)	120 VAC	30 A	20 A	30 A	20 A
	250 VAC	30 A	20 A	30 A	20 A
Motor ( 30,000 cycles )	250 VAC	2 HP	1 1/2 HP	2 HP	1 1/2 HP
	120 VAC	1 HP	3/4 HP	1 HP	3/4 HP
LRA/FLA (locked rotor amps/full load amps)	250 VAC	80 A/30 A	—	80 A/30 A	—
	120 VAC	96 A/30 A	—	96 A/30 A	—

**CONTACT DATA**

<b>Material</b>		AgCdO (Silver Cadmium Oxide), AgSnOInO (Silver Tin Oxide Indium Oxide)
<b>Initial Contact Resistance</b>		50 milliohms max @ 0.1A, 6VDC
<b>Service Life</b>	<b>Mechanical</b>	1 X 10 <sup>7</sup> Operations
	<b>Electrical</b>	1 X 10 <sup>5</sup> Operations

**CHARACTERISTICS**

<b>Operate Time</b>	Less than 15 ms.
<b>Release Time</b>	Less than 10 ms.
<b>Insulation Resistance</b>	1,000 megohms min, at 500VDC, 50%RH
<b>Dielectric Strength</b>	1500 Vrms, 1 min. between open contacts 2500 Vrms, 1 min. between coil and contacts, 4000V Without Pin 6
<b>Shock Resistance</b>	10 g, 11ms, functional; 100 g, destructive
<b>Vibration Resistance</b>	DA 1.5mm, 10-55 Hz
<b>Power Consumption</b>	0.9W, approx.
<b>Ambient Temperature Range</b>	-55 degrees C to 85 degrees C operating for class B, -40 to 130 degrees C storage
<b>Weight</b>	30 grams approx.

PTRD Rev C 1-8-08

**ORDERING INFORMATION**

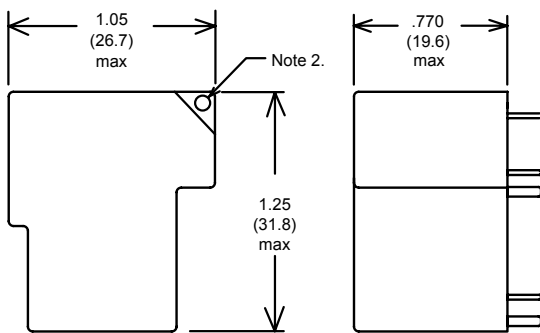
Example:	PTRD	-1C	-12	S	F	T	-1	-X
Model								
Contact Form								
1A, 1B, or 1C								
Coil Voltage								
Configuration								
Nil: Open Frame; S: Sealed plastic case; C: Dust Cover								
Insulation Material								
Nil: UL Class B; F: UL Class F								
Contact Material								
Nil: AgCdO; T: AgSnOInO; G: AgCdO+Au								
Spacing								
Nil: UL 508; -1: UL 873 (Pin # 6 omitted)								
Nil: Standard; -X ROHS Compliant								

**COIL DATA**

Coil Voltage	Resistance ohms $\pm 10\%$	Must Operate Voltage Max. (VDC)	Must Release Voltage Min. (VDC)	Continuous Voltage Max. (VDC)
5	27	3.75	0.5	5.5
6	40	4.50	0.6	6.6
9	97	6.75	0.9	9.9
12	155	9.00	1.2	13.2
24	660	18.00	2.4	26.4
48	2560	36.00	4.8	52.8
110	10330	82.50	11.0	121.0

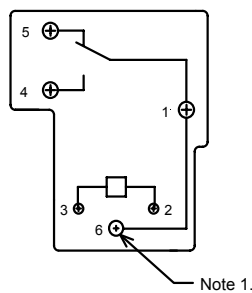
Note: Custom coil voltages within the ranges shown are available on special order.

**Overall Dimensions**  
Inches (millimeters)

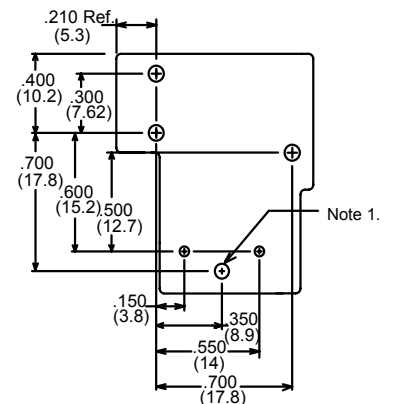


- Notes:**
1. This pin omitted for UL 873 version.
  2. Breakable nib may be removed after flux removal.

**Schematic**



**Pin Layout**  
Bottom View



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



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