

# 50/40 Amp Automotive Plug-In / PCB Mini ISO Relay

**PC792E** 



### **FEATURES**

- Most Popular Automotive Relay Footprint
- Contact Switching Capacity up to 150 Amps
- 50 Amps Continuous Carrying Current
- 125°C Operating Temperature
- Internal Diodes or Resistors Available
- >0.8 mm Contact Gap with 24 VDC
- Sockets Available
- Lead Free and RoHS Compliant

### CONTACT RATINGS 14 VDC and 28 VDC AT 25° C

Contact Form		1 Form A	1 Form AA	1 Form B	1 Form C		1 Form U	
		SPST-NO	2-SPST-NO	SPST-NC	SPDT-NO	SPDT-NC	SPST-NO-DM	
Max Switching Current	14 VDC	Make 150 A <sup>(1)</sup>	Make 2 x 150 A <sup>(1)</sup>	Make 120 A <sup>(1)</sup>	Make 150 A <sup>(1)</sup>	Make 120 A <sup>(1)</sup>	Make 2 x 150 A <sup>(1)</sup>	
		Break 50 A	Break 2 x 50 A	Break 40 A	Break 50 A	Break 40 A	Break 2 x 50 A	
	28 VDC	Make 75 A <sup>(1)</sup>	Make 2 x 75 A <sup>(1)</sup>	Make 60 A <sup>(1)</sup>	Make 75 A <sup>(1)</sup>	Make 60 A <sup>(1)</sup>	Make 2 x 75 A <sup>(1)</sup>	
		Break 25 A	Break 2 x 25 A	Break 20 A	Break 25 A	Break 20 A	Break 2 x 25 A	
Max Continuous Current	14 VDC	50 A	2 x 50 A	40 A	50 A	40 A	2 x 25 A	
	28 VDC	25 A	2 x 25 A	20 A	25 A	20 A	2 x 15 A	
Max Switching Voltage	14 VDC	75 VDC						
	28 VDC	75 VDC						
Max. Switching Power	14 VDC	700 W						
	28 VDC	700 W						
Minimum Load	14 VDC	0.1A @ 12 VDC						
	28 VDC	0.1A @ 12 VDC						

<sup>(1)</sup>With current load applied for a maximum of 10 milliseconds at a maximum duty cycle of 10%.

#### ORDERING INFORMATION

Example: PC792E -1C -C -12 S -X Model: PC792E Contact Form: 1A, 1AA (1 Form with 2 #87 Terminals), 1B, 1C or 1U (2 X 1A, 87 & 87b Isolated) Case Style: C: Plug-In; C1: Plastic Bracket; C2: Metal Bracket P: PC Pins Coil Voltage: 6, 12, 24, 48 Enclosure: C: Dust Cover; S: Sealed Coil Power: Nil: 1.6 W\*; 1.9: 1.9 W; 2.3: 2.3 W; 2.6: 2.6 W Parallel Component: Nil: None; D: Diode; R: Resistor; DR: Diode and Resistor Terminal Plating: Nil: PC Pin Version; N: Nickel Plated Terminals Standard on all Plug In Models

Resistor Values (1/4 Watt): 6V -180 ohm 12V - 680 ohm 24V - 2,700 ohm

Diode: 1N4005

Box Quantity: 400; Inner Box: 100



RoHS Compliant: -X

3220 Commander Drive, Suite 102 Carrollton, TX 75006

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Dimensions are listed for reference purposes only.

<sup>\*1.6</sup> W Industry Standard Coil

## **COIL DATA**

Coil Voltage		Coil Power (W)				Must Operate Voltage Max	Must Release Voltage Min.
(VDC)		Coil Resistance (Ohms ± 10%)					
Rated	Max	1.6 W*	1.9 W	2.3 W	2.6 W	(VDC) (VDC	(VDC)
6	7.8	22.5	19.0	15.6	13.8	3.9	0.6
9	11.7	50.6	NA	NA	NA	5.9	0.9
12	15.6	90.0	75.8	62.6	55.4	7.8	1.8
24	31.2	360.0	303.2	250.4	221.5	15.6	2.4
48	62.4	1440.0	NA	NA	NA	31.2	4.8

<sup>\*1.6</sup> W Industry Standard Coil

## **NOTES:**

The use of any coil voltage less that the rated voltage will compromise the operation of the relays.

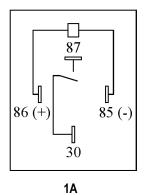
Must Operate Voltage and Must Release Voltages are for test purposes only and are not to be used as design criteria.

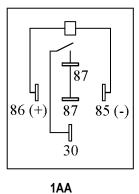
## **CHARACTERISTICS**

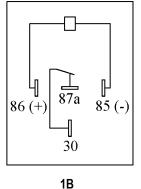
CHARACTERISTICS	
Operate Time	7 msec Typical
Release Time	5 msec Typical
Insulation Resistance	100 MΩ Min at 500VDC
Dielectric Strength	500 V 50 Hz Between Contacts 750 V 50 Hz Between Coil and Contact
Terminal Strength	8N 4N (PC type)
Shock Resistance	147 m/s <sup>2</sup> 11ms
Vibration Resistance	10 Hz—40 Hz Double Amplitude 1.5 mm
Solderability	235°C ± 2°C 3 s ± 0.5 s
Operating Temperature	- 40 to 125°C
Storage Temperature	- 40 to 155°C
Weight	31 grams, C1 36 grams
Power Consumption	1.6 W, 1.9 W, 2.3 W, 2.6 W

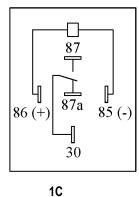
## **CONTACT DATA**

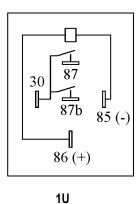
Material		AgSnO <sub>2</sub>		
Initial Contact F	Resistance	30 mΩ Max		
Service Life	Electrical	1 x 10 <sup>5</sup> Operations		
	Mechanical	1 x 10 <sup>7</sup> Operations		











Wire Diagrams



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## **DIMENSIONS** in Inches/mm

