

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

Resistor Values (1/4 Watt):  
 6V - 180 ohm  
 12V - 680 ohm  
 24V - 2,700 ohm  
 Diode: 1N4005

\*1.6 W Industry Standard Coil

Box Quantity: 400; Inner Box: 100

**COIL DATA**

Coil Voltage (VDC)		Coil Power (W)				Must Operate Voltage Max (VDC)	Must Release Voltage Min. (VDC)
		Coil Resistance (Ohms ± 10%)					
Rated	Max	1.6 W*	1.9 W	2.3 W	2.6 W		
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

\*1.6 W Industry Standard Coil

**NOTES:**

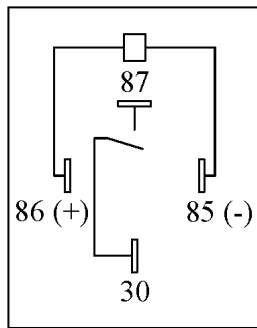
The use of any coil voltage less than the rated voltage will compromise the operation of the relays.  
 Must Operate Voltage and Must Release Voltages are for test purposes only and are not to be used as design criteria.

**CHARACTERISTICS**

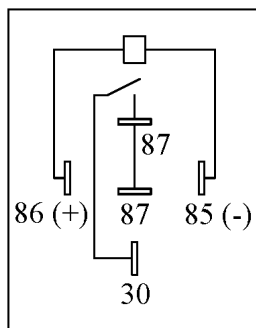
Operate Time	7 msec Typical
Release Time	5 msec Typical
Insulation Resistance	100 MΩ Min at 500VDC
Dielectric Strength	500 V 50 Hz Between Contacts 750 V 50 Hz Between Coil and Contact
Terminal Strength	8N 4N (PC type)
Shock Resistance	147 m/s <sup>2</sup> 11ms
Vibration Resistance	10 Hz—40 Hz Double 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**

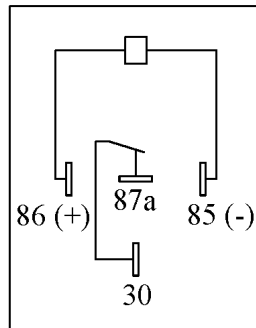
Material	AgSnO <sub>2</sub>	
Initial Contact Resistance	30 mΩ Max	
Service Life	Electrical	1 x 10 <sup>5</sup> Operations
	Mechanical	1 x 10 <sup>7</sup> Operations



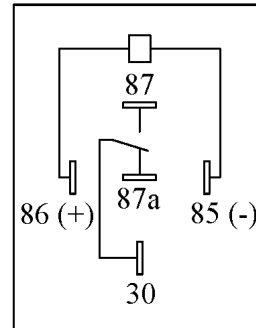
1A



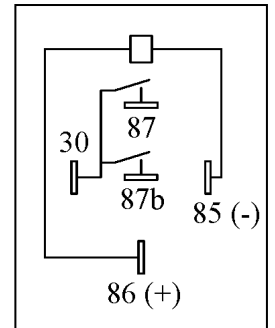
1AA



1B



1C



1U

**Wire Diagrams**



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Dimensions are listed for reference purposes only.

Specifications and Availability subject to change without notice.

**DIMENSIONS in Inches/mm**

