

# 40/30 Amp Automotive Plug-In / PCB Mini ISO Relay - Ignition Protected

**PC792A**



## FEATURES

- Ignition Protected\* | SAE J1171 | UL 1500 | ISO 8846
- Most Popular Automotive Relay Footprint
- Contact Switching Capacity up to 120 Amps
- 40 Amps Continuous Carrying Current
- 125°C Operating Temperature
- Internal Diodes or Resistors Available
- Sockets Available
- Lead Free and RoHS Compliant
- Fully Automated Assembly

## CONTACT RATINGS 14 VDC at 25°C

Contact Form	1 Form A (SPST-NO) 1 Form AA (SPST-NO, 1 Form A with 2 #87 Terminals) 1 Form C (SPDT) 1 Form U (SPST-NO, 2 Form A, 87 & 87b Isolated)	
	Normally Open	Normally Closed
Max Switching Current	Make 120 A <sup>(1)</sup>	Make 90 A <sup>(1)</sup>
	Break 40 A	Break 30 A
Max Continuous Current	40 A @ 25°C	30 A @ 25°C
	30 A @ 85°C	22.5 A @ 85°C
Max Continuous Current 1 Form U and 1 Form AA	2 X 20 Amps (at 85°C)	
Max Switching Voltage	75 VDC	
Max. Switching Power	630 W	
Minimum Load	0.1A @ 12 VDC	

\* Sealed with 6,9,12, or 24 VDC, 1.6 Watt Coil

## CONTACT RATINGS 28 VDC at 25°C

Contact Form	1 Form A (SPST-NO) 1 Form AA (SPST-NO, 1 Form A with 2 #87 Terminals) 1 Form C (SPDT) 1 Form U (SPST-NO, 2 Form A, 87 & 87b Isolated)	
	Normally Open	Normally Closed
Max Switching Current	Make 60 A <sup>(1)</sup>	Make 45 A <sup>(1)</sup>
	Break 20 A	Break 15 A
Max Continuous Current	20 A @ 25°C	15 A @ 20°C
	15 A @ 85°C	11.25 @ 20°C
Max Continuous Current 1 Form U and 1 Form AA	2 X 15 Amps (at 85°C)	
Max Switching Voltage	75 VDC	
Max Switching Power	630 W	
Minimum Load	0.1A @ 24 VDC	

<sup>(1)</sup> With current load applied for a maximum of 3 seconds at a maximum duty cycle of 10%.

## ORDERING INFORMATION

Example: Model: <b>PC792A</b>	PC792A	-1C	-C	-12	S	1.9	-D	N	-X
Contact Form: <b>1A:</b> 1 Form A (SPST-NO) <b>1AA:</b> 1 Form AA (SPST-NO, 1 Form A with 2 # 87 Terminals) <b>1C:</b> 1 Form C (SPDT) <b>1U:</b> 1 Form U (SPST-NO, 2 Form A, 87 & 87b Isolated)									
Case Style: <b>C:</b> Plug-In; <b>C1:</b> Plastic Bracket; <b>C2:</b> Metal Bracket <b>C3:</b> (S only) Weatherproof Case with Metal Brackets; <b>P:</b> PC Pins									
Coil Voltage: <b>6:</b> 6 VDC; <b>9:</b> 9 VDC; <b>12:</b> 12 VDC; <b>24:</b> 24 VDC; <b>48:</b> 48 VDC									
Enclosure: <b>C:</b> Dust Cover; <b>S:</b> Sealed; <b>S1:</b> Flux Tight <sup>(2)</sup>									
Coil Power: <b>Nil:</b> 1.6 W <sup>(3)</sup> ; <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									
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>									

See SC792 for Available Sockets

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

<sup>(2)</sup> Flux Tight relays are constructed such that Flux will not enter the relay in an automated soldering process, they are NOT Suitable for water wash cleaning.  
<sup>(3)</sup> 1.6 W Industry Standard Coil

Box Quantity: 400; Inner Box: 100

**CONTACT DATA**

Material		AgSnO <sub>2</sub>
Initial Contact Resistance		100 MΩ Max @ 0.1 A 6 VDC
Service Life	Electrical	1 x 10 <sup>5</sup> Operations
	Mechanical	1 x 10 <sup>7</sup> Operations

**CHARACTERISTICS**

Operate Time	7 msec Typical
Release Time	2 msec Typical
Insulation Resistance	100 MΩ Min at 500VDC, 50% RH
Dielectric Strength	500 Hz 500 V Between Contacts
	500 Hz 750 V Between Coil and Contact
Shock Resistance	147 m/s <sup>2</sup> 11ms
Power Consumption	1.6 W(2), 1.9 W, 2.3 W, 2.6 W

**CHARACTERISTICS Continued**

Vibration Resistance	10 Hz - 40 Hz Double Amplitude
Terminal Strength	8N 4N (PC type)
Solderability	260°C for 5 seconds
Operating Temperature Range	- 40 to 125°C
Storage Temperature Range	- 40 to 155°C
Weight	31 grams

**COIL DATA**

Coil Voltage (VDC)(3)		Coil Resistance 7 (Ohms ± 10%)				Must Operate Voltage Max (VDC)(4)	Must Release Voltage Min. (VDC)(4)
Rated	Max	1.6 W(2)	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

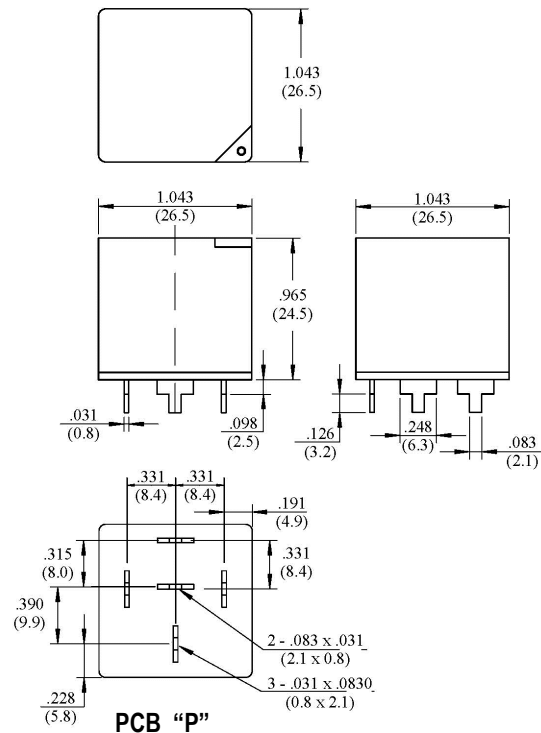
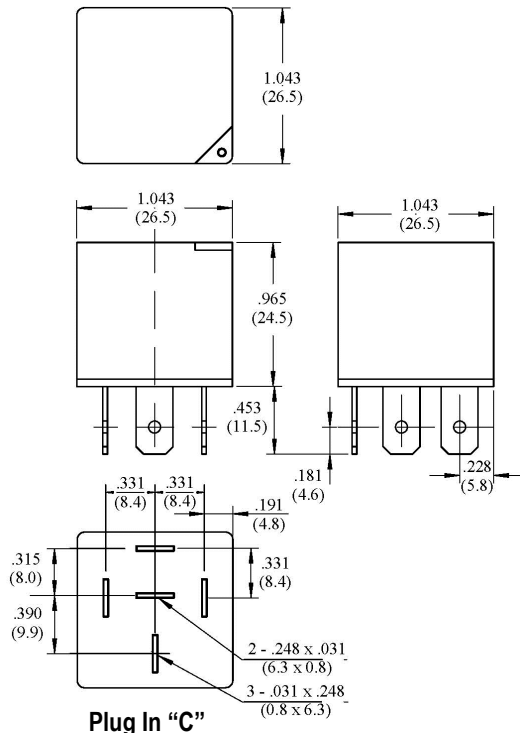
(2)1.6 W Industry Standard Coil

**NOTES:**

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

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

**DIMENSIONS in Inches (mm)**



3220 Commander Drive, Suite 102 Carrollton, TX 75006

Sales: (972) 713-6272

(888) 997-3933

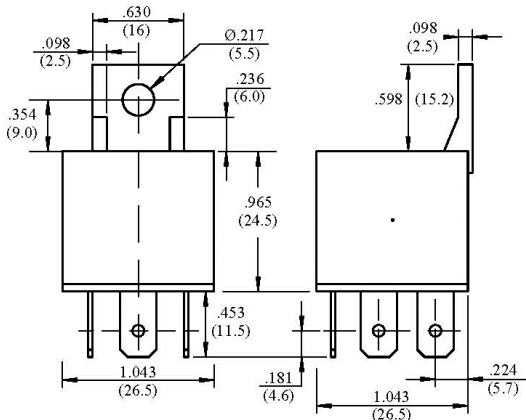
Fax: (972)735-0964

www.PickerComponents.com

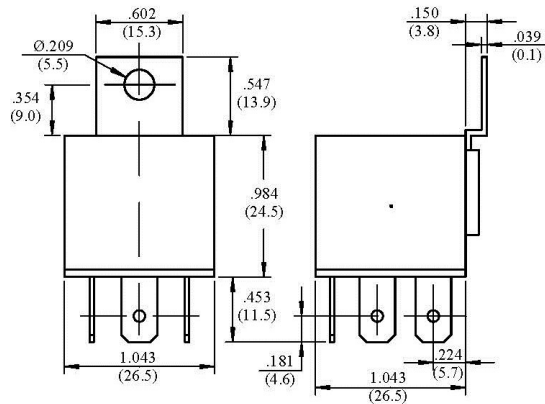
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Dimensions are listed for reference purposes only.

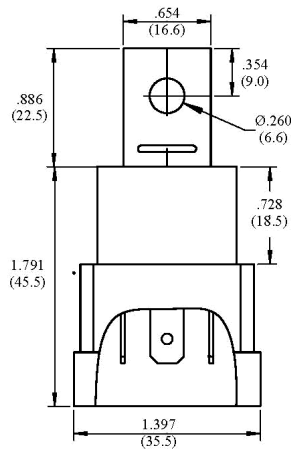
Specifications and Availability subject to change without notice.



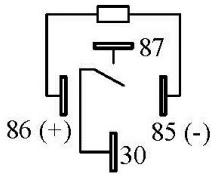
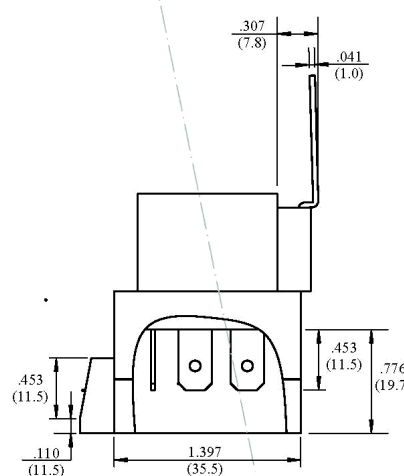
Plastic Bracket "C1"



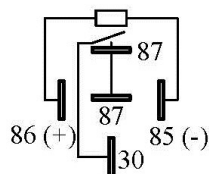
Metal Bracket "C2"



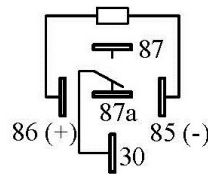
Weatherproof Case "C3"



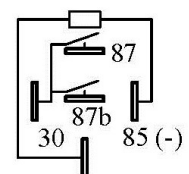
1A



1AA



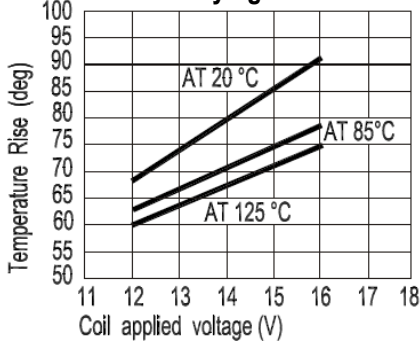
1C



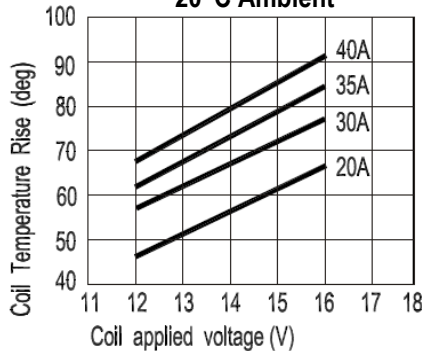
1U

Wiring Diagrams

Coil Temperature Rise @ 40A Carrying Current



Coil Temperature Rise 20°C Ambient



Max Value for Switching Capacity

