

# 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)	
	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	

## 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)	
	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	

\*Sealed "S" enclosures with 6, 9, 12 or 24 VDC, 1.6 Watt Coils are Ignition Protected

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

## ORDERING INFORMATION

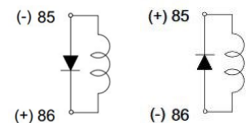
Example:	PC792A	-1C	-C	-12	S	1.9	-D	N	-X
Model:	<b>PC792A</b>								
Contact Form:	<b>1A:</b> 1 Form A (SPST-NO) <b>1AA:</b> 1 Form AA (SPST-NO, 1 Form A with 2 #87 Terminals) <b>1C:</b> 1 Form C (SPDT)								
Case Style:	<b>C:</b> Plug-In; <b>C1:</b> Plastic Bracket; <b>C2:</b> Metal Bracket <b>C3:</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>N1:</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>N1:</b> None; <b>D:</b> Diode; <b>D1:</b> Reverse Diode; <b>R:</b> Resistor								
Terminal Plating:	<b>N1:</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

Orientation of Optional Diode  
Diode (D)      Reverse Diode (D1)



\*Contact Picker if you require a dual diode

Box Quantity: 400; Inner Box: 100

\*Sealed "S" enclosures with 6, 9, 12 or 24 VDC, 1.6 Watt Coils are Ignition Protected

**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**

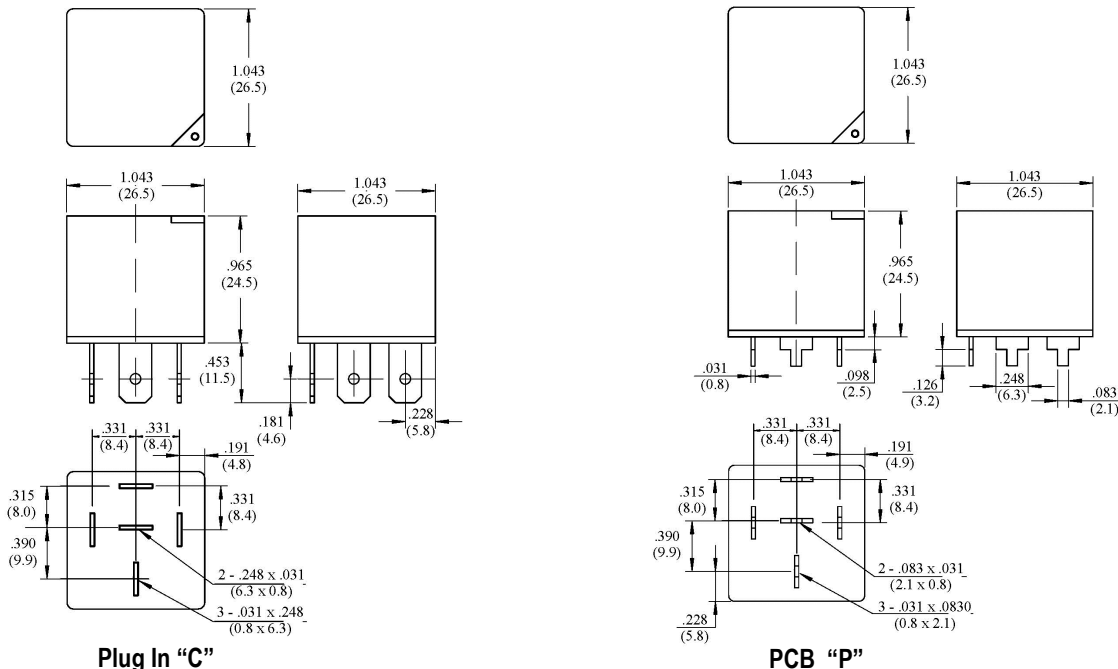
Vibration Resistance	10 Hz - 40 Hz Double Amplitude
Terminal Strength	8N 4N (PC type)
Solderability	260°C for 5 seconds
Operating Temperature Range	-40 to 125°C
Storage Temperature Range	-40 to 155°C
Weight	31 grams
Flammability	UL-94-VO Meets FMVSS 302

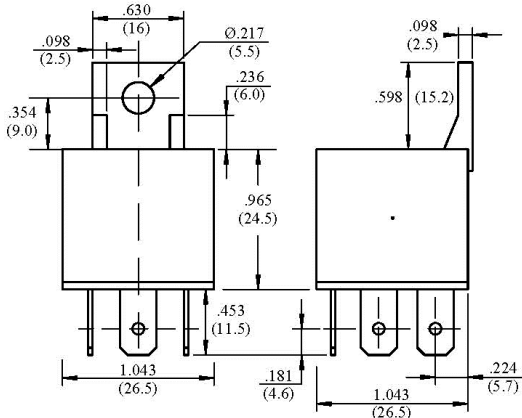
**COIL DATA**

Coil Voltage (VDC) <sup>(3)</sup>		Must Operate Voltage Max (VDC) <sup>(4)</sup>	Must Release Voltage Min. (VDC) <sup>(4)</sup>	Resistor Values (Ohms ± 10)	Coil Resistance Without Resistor (Ohms ± 10%)				Coil Resistance With Resistor (Ohms ± 10%)			
Rated	Max				1.6 W <sup>(2)</sup>	1.9 W	2.3 W	2.6 W	1.6 W <sup>(2)</sup>	1.9 W	2.3 W	2.6 W
6	7.8	3.9	0.6	180	22.5	19	15.6	13.8	20	17.2	14.4	12.8
9	11.7	5.9	0.9	390	50.6	NA	NA	NA	44.8	NA	NA	NA
12	15.6	7.8	1.8	680	90	75.8	62.6	55.4	79.5	68.2	57.3	51.2
24	31.2	15.6	2.4	2700	360	303.2	250.4	221.5	317.6	272.6	229.1	204.7
48	62.4	31.2	4.8	10000	1440	NA	NA	NA	1258.7	NA	NA	NA

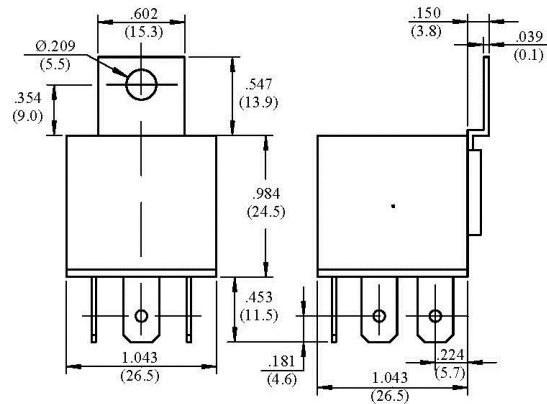
(2)1.6 W Industry Standard Coil

**DIMENSIONS in Inches (mm)**

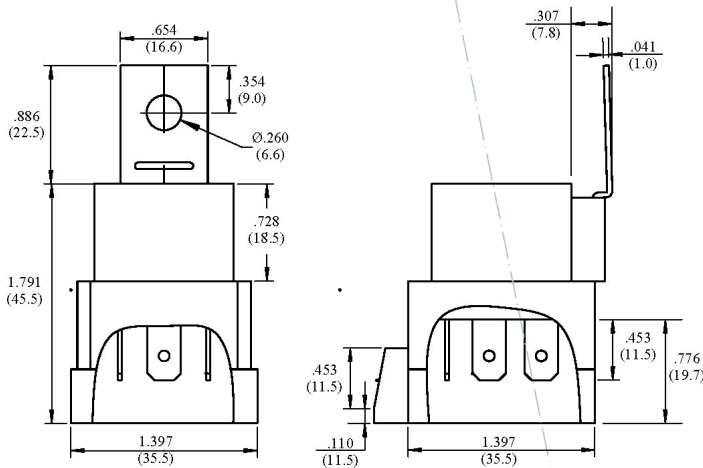




Plastic Bracket "C1"

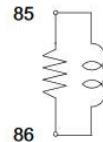


Metal Bracket "C2"

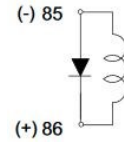


Weatherproof Case "C3"

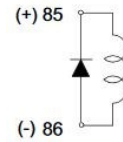
Parallel Component Options



Resistor (R)

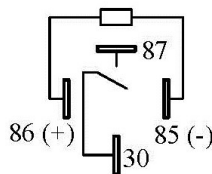


Diode (D)

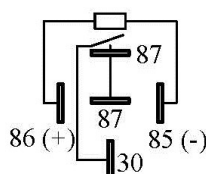


Reverse Diode (D1)

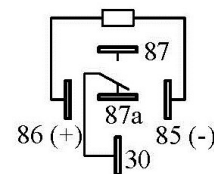
Wiring Diagrams



1A

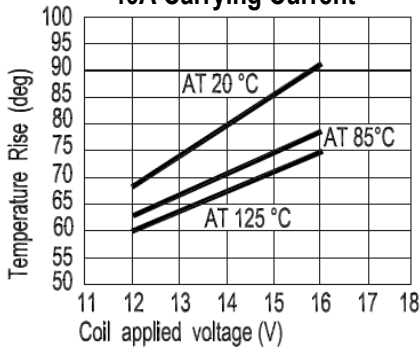


1AA

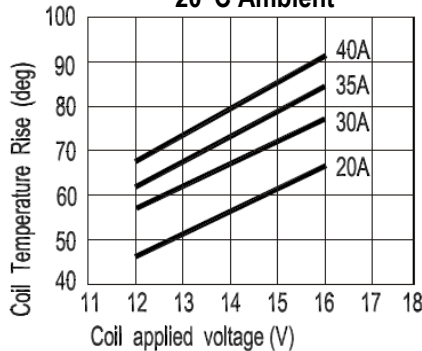


1C

Coil Temperature Rise @ 40A Carrying Current



Coil Temperature Rise 20°C Ambient



Max Value for Switching Capacity

