50/40 Amp Automotive Plug-In / PCB Mini ISO Relay - Ignition Protected PC792E

FEATURES

- Ignition Protected* | SAE J1171 | UL 1500 | ISO 8846
- 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

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(1)	Make 2 x 150 A(1)	Make 120 A(1)	Make 150 A(1)	Make 120 A(1)	Make 2 x 150 A(1)
		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(1)	Make 2 x 75 A(1)	Make 60 A(1)	Make 75 A(1)	Make 60 A(1)	Make 2 x 75 A(1)
		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					

(1)With current load applied for a maximum of 10 milliseconds at a maximum duty cycle of 10%.
*Sealed with 6,9,12 or 24 VDC, 1.6 Watt Coil

ORDERING INFORMATION

Example:		PC792E	-1C	-C	-12	S		-R	N	-X
Model:	**PC792E**									
Contact Form:	**1A**, **1AA** (1 Form 1 A with 2 #87 Terminals), **1B**, **1C**, or **1U** (2 Form 1A with pins 87 and 87b isolated)									
Case Style:	**C**: Plug-In; **C1**: Plastic Bracket; **P:** PC Pins									
Coil Voltage:	**6, 12, 24, 48**									
Enclosure:	**C**: Dust Cover; **S**: Sealed; **S1**: Flux Tight(2)									
Coil Power:	**Nil**: 1.6W(3); **1.9**: 1.9W; **2.3**: 2.3W; **2.6**: 2.6W									
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									
RoHS Compliant:	**-X**									

See SC792 for available sockets

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

(2) 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
(3) 1.6W Industry Standard Coil

Box Quantity 400; Inner Box 100

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Dimensions are listed for reference purposes only.
Specifications and Availability subject to change without notice.

COIL DATA

Coil Voltage (VDC)		Coil Power (W) / Coil Resistance (Ohms ± 10%)				Must Operate Voltage Max (VDC)	Must Release Voltage Min. (VDC)
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	1,440.0	NA	NA	NA	31.2	4.8

**1.6 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.

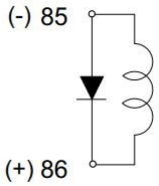
CHARACTERISTICS

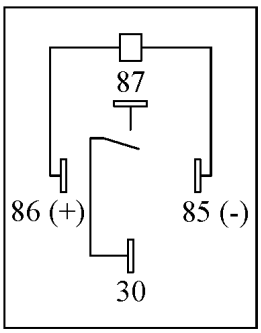
Operate Time	7 msec Typical
Release Time	5 msec Typical
Insulation Resistance	100 MΩ Min at 500VDC
Dielectric Strength	500 V 50 Hz Between Contacts 750 V 50 Hz Between Coil and Contact
Terminal Strength	8N 4N (PC type)
Shock Resistance	147 m/s^2 11ms
Vibration Resistance	10 Hz—40 Hz Double Amplitude 1.5 mm
Solderability	260°C for 5 seconds
Operating Temperature	- 40°C to 125°C
Storage Temperature	- 40°C 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

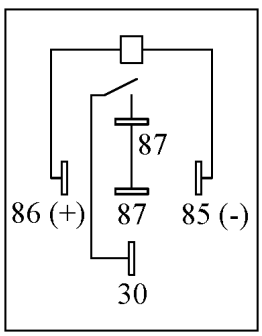
Material		$AgSnO_2$
Initial Contact Resistance		30 mΩ Max
Service Life	Electrical	1 x 10^5 Operations
	Mechanical	1 x 10^7 Operations

Orientation of Optional Diode





1A



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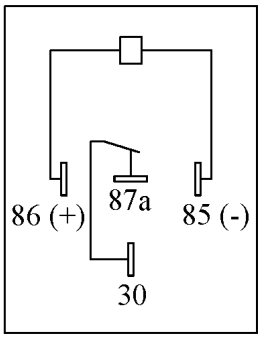

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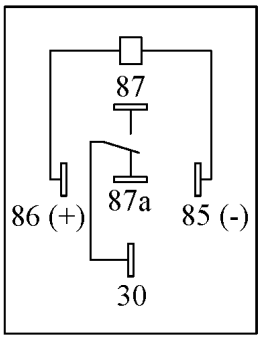
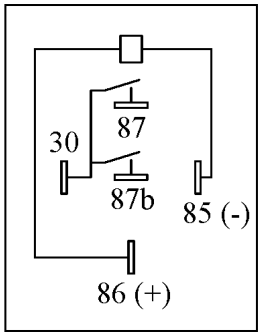


1C



1U

Wire Diagrams

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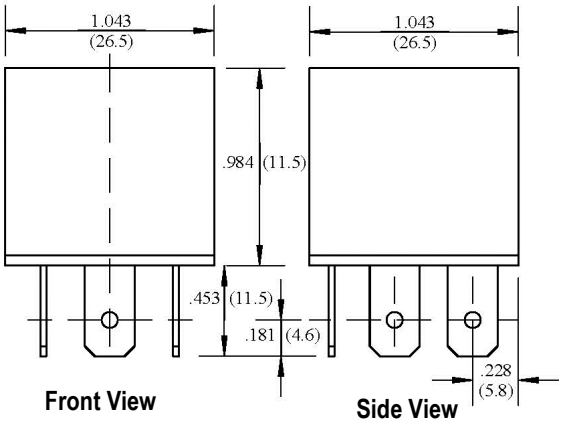
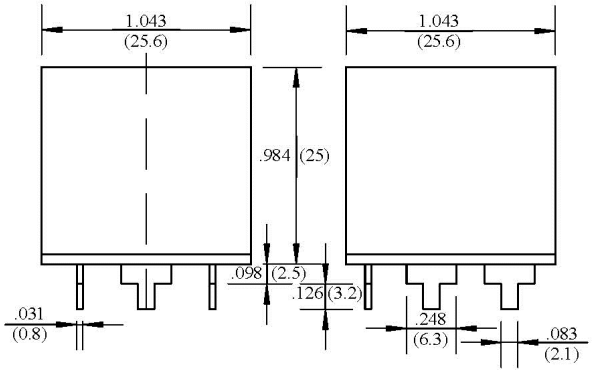
DIMENSIONS in Inches/mm



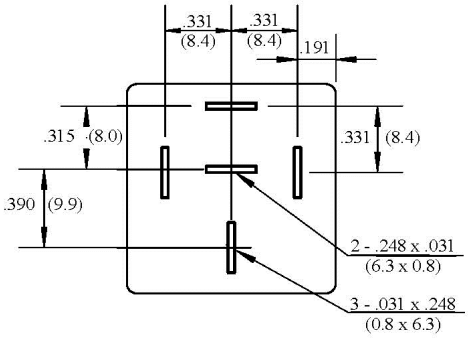
Front View Side View

Relay (QC)

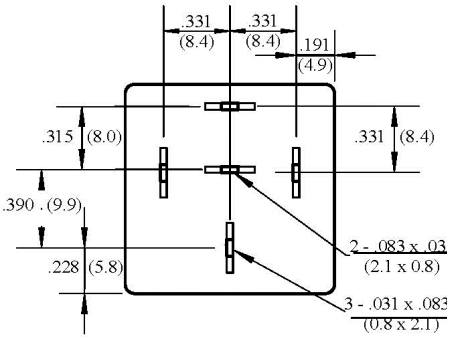


Front View Side View

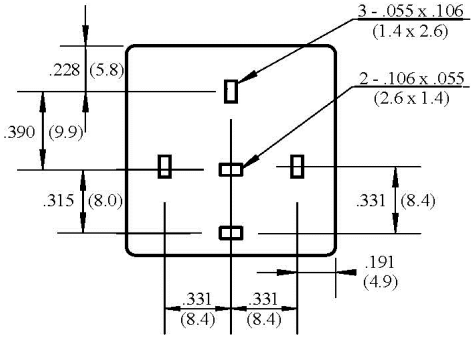
Relay (Pins)



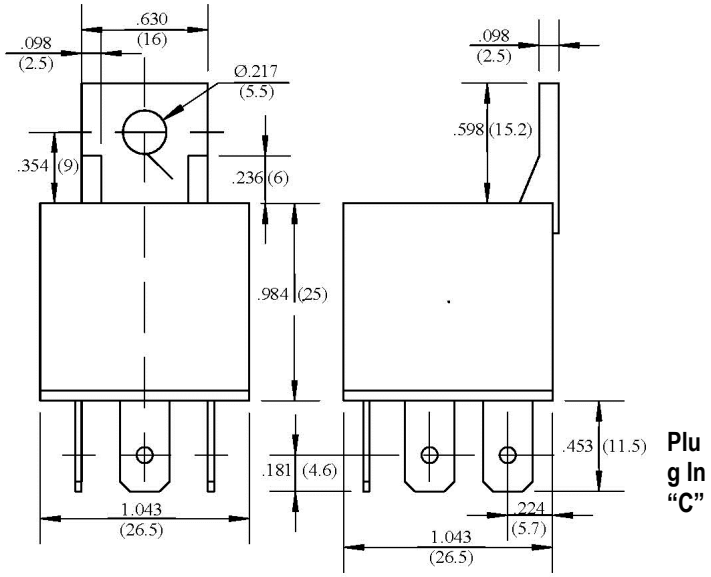
Plug-In "C"
(Bottom View)



PC Pins "P"
(Bottom View)



PCB Board Layout
(Top View)



Plastic Bracket "C1"

Plug In "C"

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