

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

PC792B



FEATURES

- Ignition Protected* | SAE 1171 | UL 1500 | ISO 8846
- Copper Contact Leads for Enhanced Heat Dissipation
- 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

CONTACT RATINGS 14 VDC at 25°C

Contact Form	1 Form A, 1 Form AA or 1 Form C	
	Normally Open	Normally Closed
Max Switching Current	Make 120 A ⁽¹⁾	Make 120 A ⁽¹⁾
	Break 40 A	Break 40 A
Max Continuous Current	40 A @ 25°C	40 A @ 25°C
	30 A @ 85°C	30 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, 1 Form AA or 1 Form C	
	Normally Open	Normally Closed
Max Switching Current	Make 60 A ⁽¹⁾	Make 60 A ⁽¹⁾
	Break 20 A	Break 20 A
Max Continuous Current	20 A @ 25°C	20 A @ 25°C
	15 A @ 85°C	15 A @ 85°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	

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 ² 11ms
Vibration Resistance	10 Hz—40 Hz Double Amplitude 1.5 mm
Terminal Strength	8N 4N (PC type)
Power Consumption	1.6 W, 1.9 W, 2.3 W, 2.6 W

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

ORDERING INFORMATION

Example:	PC792B	-1C	-C	-12	S		N	-X
Model:	PC792B							
Contact Form:	1A, 1AA (1 Form with 2 #87 Terminals) 1C, 1U (2 X 1A, 87 & 87b Isolated)							
Case Style:	C: Plug-In; C1: Plastic Bracket; C2: Metal Bracket C3: (S only) Weatherproof Case with Metal Brackets; 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							
Terminal Plating:	Nil: PC Pin Version; N: Nickel Plated Terminals Standard on all Plug In Models							
RoHS Compliant:	-X							

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

CONTACT DATA

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

CHARACTERISTICS Continued

Solderability	235°C ± 2°C 3 s ± 0.5 s
Operating Temperature Range	- 40 to 125°C
Storage Temperature Range	- 40 to 155°C
Weight	31 grams

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

*1.6 Industry Standard Coil Box Quantity: 400; Inner Box: 100

COIL DATA

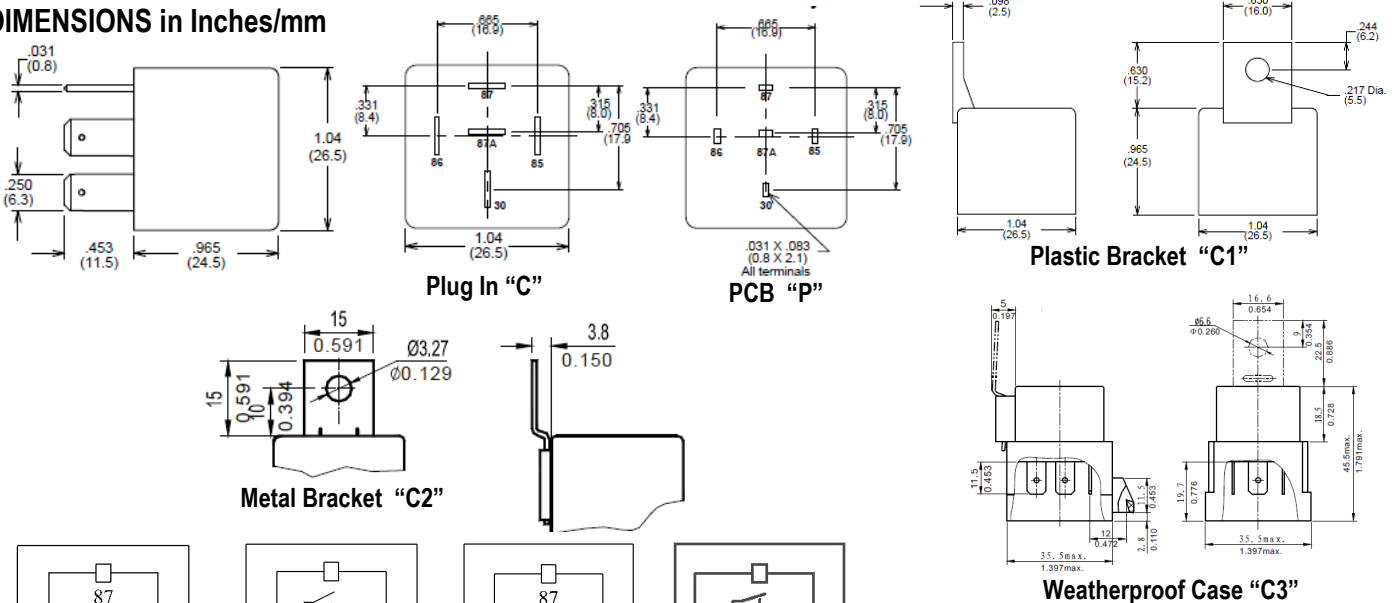
Coil Voltage (VDC)		Coil Resistance Ohms ± 10%				Must Operate Voltage Max (VDC)	Must Release Voltage Min. (VDC)
Rated	Max	1.6 W*	1.9 W	2.3 W	2.6 W		
6	7.8	22.5	19.0	15.6	13.8	3.9	0.6
9	11.7	50.6	NA	NA	NA	5.9	0.9
12	15.6	90.0	75.8	62.6	55.4	7.8	1.8
24	31.2	360.0	303.2	250.4	221.5	15.6	2.4
48	62.4	1440.0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

*1.6 W Industry Standard Coil

NOTES:

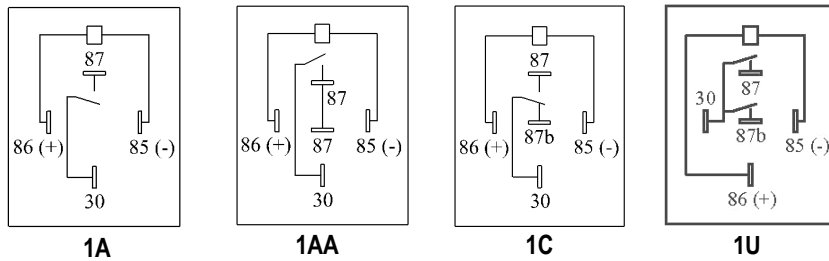
The use of any coil voltage less than the rated voltage will compromise the operation of the relays.
 Must Operate Voltage is listed for test purposes only and is not to be used as design criteria.
 Pickup and release voltages are for test purposes only and are not to be used as design criteria.

DIMENSIONS in Inches/mm

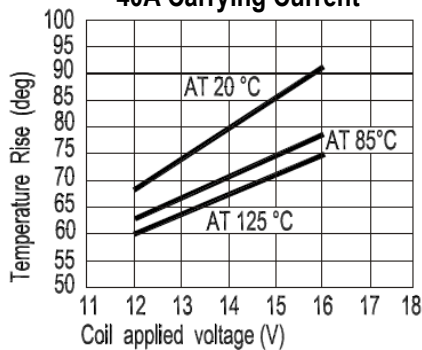


Wiring Diagrams

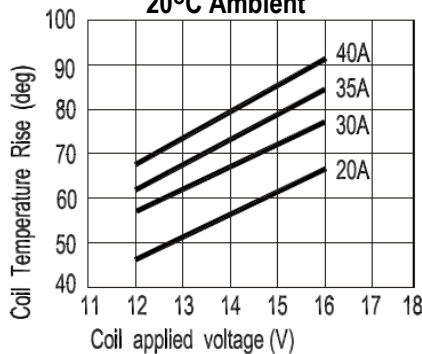
Notes:
 Contact Forms 1A, 1AA, 1C & 1U shown
 On Contact Form A Pin 87a is Omitted
 Tolerances ± .010 unless otherwise noted



Coil Temperature Rise @ 40A Carrying Current



Coil Temperature Rise 20°C Ambient



Max Value for Switching Capacity

