

# Automotive Plug-In / PCB Mini ISO Relay

**PC792B** 



#### **FEATURES**

**CHARACTERISTICS** 

- 40 Amps Continuus Carrying Current
- Internal Diode or Resistor Option
- Sockets Available
- Fully Automated Assembly



#### **CONTACT RATINGS**

| Contact Form   |     | 1A SPST N.O.                    |
|----------------|-----|---------------------------------|
|                |     | 1C SPDT                         |
|                |     | 1AA SPST N.O. (2 #87 Terminals) |
| Contact Rating | 1A  | 40A @ 14VDC, resistive          |
|                |     | 20A @ 28VDC, resistive          |
|                | 1C  | 40A @ 14VDC, resistive          |
|                |     | 20A @ 28VDC, resistive          |
|                | 1AA | 40A @ 14VDC, resistive          |
|                |     | 20A @ 28VDC, resistive          |
|                |     |                                 |

| Insulation Resistance | 100 MΩ min. at 500 VDC                   |  |  |  |
|-----------------------|--|--|--|--|
| Dielectric Strength   | 500 Vrms, 50 Hz, between contacts        |  |  |  |
|                       | 750 Vrms, 50 Hz, between coil & contacts |  |  |  |
| Power Consumption     | 1.6W, 1.9W, 2.3W                         |  |  |  |
| Terminal Strength     | 8N quick connect                         |  |  |  |
| Solderability         | 260°C 5 s ± 0.5 s                        |  |  |  |
| Operating Temperature | -40°C to 125°C                           |  |  |  |
| Storage Temperature   | -40°C to 155°C                           |  |  |  |
| Shock Resistance      | 147 m/s <sup>2</sup> 11 ms               |  |  |  |
| Vibration Resistance  | 10-40Hz; 1.5mm double amplitude          |  |  |  |
| Weight                | 31.0g                                    |  |  |  |
|                       |  |  |  |  |

#### **CONTACT DATA**

| Maximum Switch             | ning Power   | 560 W                          |  |  |
|----------------------------|--------------|--------------------------------|--|--|
| Maximum Switch             | ning Voltage | 75 VDC                         |  |  |
| Maximum Contin             | uous Current | 40 A                           |  |  |
| Material                   |              | AgSnO <sub>2</sub>             |  |  |
| Initial Contact Resistance |              | 30 mΩ max.                     |  |  |
| Service Life               | Mechanical   | 1 x 10 <sup>7</sup> operations |  |  |
|                            | Electrical   | 1 x 10 <sup>5</sup> operations |  |  |

Values can change due to the switching frequency, desired reliability levels, environmental conditions, and in-rush current levels. It is recommended to test to actual load conditions for the application. It is the users responsibility to determine the performance suitability for their specific application. The use of any coil voltage less than the rated coil voltage may compromise the operation of the relay.

# Automotive Plug-In / PCB Mini ISO Relay

**PC792B** 

## **ORDERING INFORMATION**

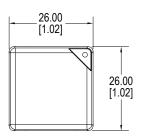
| Example             | PC792B   | -1C              | -C           | -12 | S | 1.9 | -D | N | -X |
|---------------------|--|------------------|--------------|-----|---|-----|----|---|----|
| Model:              | PC792B   |                  |              |     |   |     |    |   |    |
| Contact Form:       | 1A<br>1C<br>1AA  |                  |              |     |   |     |    |   |    |
| Mounting Version:   | C = Plug-In C1 = Plastic Bracket C2 = Metal Bracket C3 = Weatherproof Case with P = PC Pins *only available sealed | Metal Bracket    | *            |     |   |     |    |   |    |
| Coil Voltage:       | 6 = 6VDC<br>9 = 9VDC<br>12 = 12VDC<br>24 = 24VDC<br>48 = 48VDC   |                  |              |     |   |     |    |   |    |
| Enclosure:          | C = Dust Cover<br>S = Sealed<br>S1 = Flux Tight (1)  |                  |              |     |   |     |    |   |    |
| Coil Power:         | Nil = 1.6W<br>1.9 = 1.9W<br>2.3 = 2.3W (2)   |                  |              |     |   | _   |    |   |    |
| Parallel Component: | Nil = None<br>D = Diode<br>D1 = Reverse Diode<br>R = Resistor  |                  |              |     |   |     | _  |   |    |
| Terminal Plating:   | Nil = PC Pin<br>N = Tin Plated Terminals, star   | ndard on all Plu | ıg-In models |     |   |     |    | _ |    |
| RoHS Compliant:     | -X   |                  |              |     |   |     |    |   | •  |

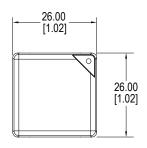
<sup>(1)</sup> Flux Tight relays are constructed such that Flux will not enter the relay in an automated soldering process, they are NOT suitable for water wash cleaning. (2) Special coil - minimum order quantities apply.

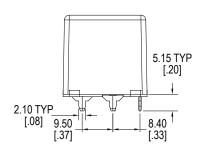
## **COIL DATA**

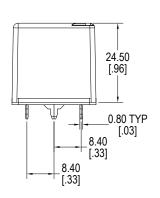
| Coil V | oltage/ | Resistance<br>(Ohms ± 10%) |       |       | Pick Up Voltage Max.<br>VDC | Release Voltage Min.<br>VDC | Coil Power<br>W | Operate Time ms | Release Time<br>ms |
|--------|---------|----------------------------|-------|-------|-----------------------------|-----------------------------|-----------------|-----------------|--------------------|
| Rated  | Maximum | 1.6W                       | 1.9W  | 2.3W  |                             |                             |                 |                 |                    |
| 6      | 7.8     | 22.5                       | 19    | 15.6  | 3.9                         | 0.6                         |                 | ≤10             | ≤10                |
| 9      | 11.7    | 50.6                       | n/a   | n/a   | 5.9                         | 0.9                         | 1.6             |                 |                    |
| 12     | 15.6    | 90                         | 75.8  | 62.6  | 7.8                         | 1.2                         | 1.9             |                 |                    |
| 24     | 31.2    | 360                        | 303.2 | 250.4 | 15.6                        | 2.4                         | 2.3             |                 |                    |
| 48     | 62.4    | 1440                       | n/a   | n/a   | 31.2                        | 4.8                         |                 |                 |                    |

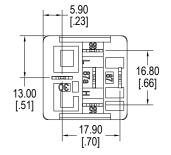
## **DIMENSIONS** mm (inches)



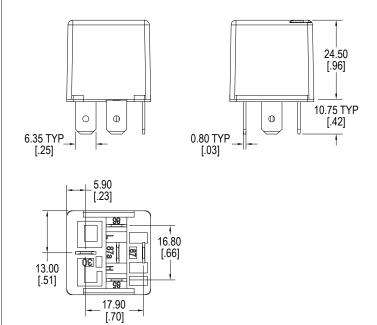






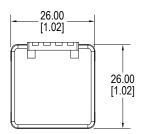


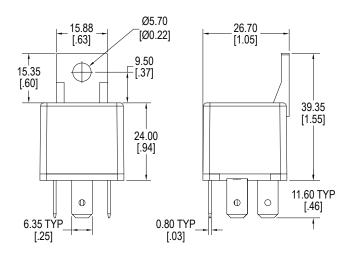
Standard with PC Pins (P)

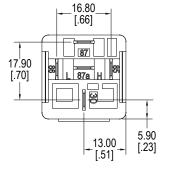


Standard with Quick Connect (C)

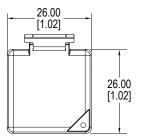
## **DIMENSIONS** mm (inches)

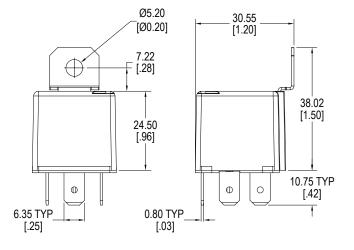


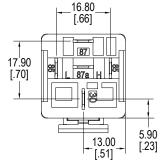




Quick Connect with Plastic Bracket (C1)

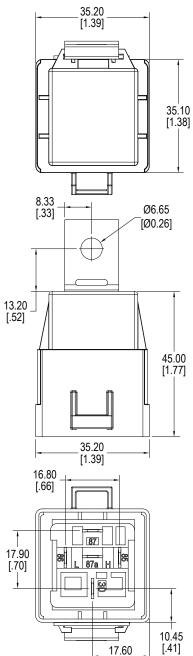


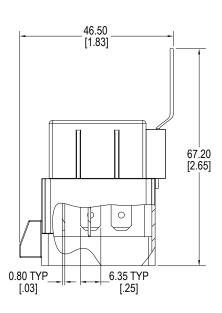


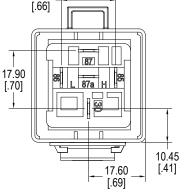


Quick Connect with Metal Bracket (C2)

# **DIMENSIONS** mm (inches)

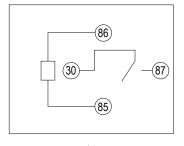




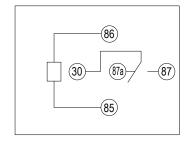


Quick Connect with Weatherproof Shroud (C3)

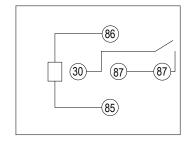
## **SCHEMATICS** Bottom Views



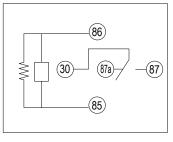
1A



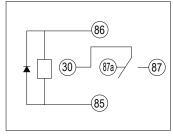
1C



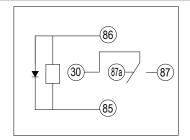
1AA



1C with Resistor



1C with Diode



1C with Reverse Diode

## **PC LAYOUT**

