H782 Series Hermetically Sealed Electromechanical Relay Selection Guide

These ice cube style relays are designed for applications requiring hermetically sealed units for hazardous factory locations. (Class I, Div. 2 Groups A, B, C, D).

**Features**
- Hermetically sealed for use in hazardous locations (Class I, Div. 2 Groups A, B, C, D)
- Small package design
- Silver alloy contacts
- High reliability and long life
- High vibration and shock resistance
- Sealed for washdown conditions
- 4PDT models

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>H782 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coil Voltages</strong></td>
<td>120VAC, 240VAC, 12VAC, 12VDC, 24VAC, 24VDC</td>
</tr>
<tr>
<td><strong>Configuration</strong></td>
<td>4PDT</td>
</tr>
<tr>
<td><strong>Contact Rating</strong></td>
<td>3A, 5A</td>
</tr>
<tr>
<td><strong>Base Socket</strong></td>
<td>14 pin spade terminal</td>
</tr>
<tr>
<td><strong>Agency Approvals</strong></td>
<td>UL Recognized (E344123), cULus when used with 782-4C-SKT socket, CSA, CE, RoHS</td>
</tr>
<tr>
<td><strong>Prices starting at</strong></td>
<td>$36.50</td>
</tr>
</tbody>
</table>

**782 Series Hermetically Sealed Relays Selection Guide**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Price</th>
<th>Coil Voltage</th>
<th>Configuration</th>
<th>Contact Rating</th>
<th>Dimensions</th>
<th>Relay Socket</th>
<th>Part Number</th>
<th>Price</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H782-4C3-12D</td>
<td>$36.50</td>
<td>12VDC</td>
<td>4PDT</td>
<td>3A</td>
<td></td>
<td>782-4C-SKT</td>
<td>$3.75</td>
<td></td>
<td>Figure 1</td>
</tr>
<tr>
<td>H782-4C3-12A</td>
<td>$36.50</td>
<td>12VAC</td>
<td>4PDT</td>
<td>3A</td>
<td></td>
<td></td>
<td>$3.75</td>
<td></td>
<td>Figure 2</td>
</tr>
<tr>
<td>H782-4C3-24D</td>
<td>$36.50</td>
<td>24VDC</td>
<td>4PDT</td>
<td>3A</td>
<td></td>
<td></td>
<td>$3.75</td>
<td></td>
<td>Figure 2</td>
</tr>
<tr>
<td>H782-4C3-24A</td>
<td>$36.00</td>
<td>24VAC</td>
<td>4PDT</td>
<td>5A</td>
<td></td>
<td></td>
<td>$3.75</td>
<td></td>
<td>Figure 2</td>
</tr>
<tr>
<td>H782-4C3-120A</td>
<td>$42.00</td>
<td>120VAC</td>
<td>4PDT</td>
<td>3A</td>
<td></td>
<td></td>
<td>$3.75</td>
<td></td>
<td>Figure 2</td>
</tr>
<tr>
<td>H782-4C5-240A</td>
<td>$44.00</td>
<td>240VAC</td>
<td>4PDT</td>
<td>5A</td>
<td></td>
<td></td>
<td>$3.75</td>
<td></td>
<td>Figure 2</td>
</tr>
</tbody>
</table>
H782 Series Hermetically Sealed Electromechanical Relay Specifications

H782 Series Hermetically Sealed Relay Specification Table

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>H782-4C3-12D</th>
<th>H782-4C3-12A</th>
<th>H782-4C3-24D</th>
<th>H782-4C3-24A</th>
<th>H782-4C5-12D</th>
<th>H782-4C5-12A</th>
<th>H782-4C5-24D</th>
<th>H782-4C5-24A</th>
<th>H782-4C5-120A</th>
<th>H782-4C5-240A</th>
</tr>
</thead>
</table>

General Specifications

- **Service Life: Mechanical / Electrical Operations**
  - Mechanical: 10,000,000 operations unpowered
  - Electrical: 100,000 operations @ rated resistive load

- **Operating Temperature**: -40°C to 70°C (-40°F to 158°F)

- **Response Time**: 20ms

- **Vibration Resistance**: 6 gn at 10–55 Hz

- **Shock Resistance**: 10 Gs

- **Weight**: 45g (1.59 oz)

- **Agency Approvals and Standards**: UL Recognized File E344123, CE, CSA, RoHS

- **Environmental Protection**: IP67 (Class I, Div. 2; Groups A, B, C, D, T5 Temp Code for Hazardous Locations)

- **NEMA B300 Pilot Duty Rated**: Yes

Coil Specifications

- **Coil Input Voltage**
  - 12VDC
  - 24VDC
  - 24VAC
  - 120VAC
  - 240VAC

- **Coil Resistance**
  - 160Ω
  - 43Ω
  - 650Ω
  - 160Ω
  - 3.9kΩ
  - 12kΩ

- **Power Consumption**: 0.9 W DC, 1.2 W AC

- **Dropout Voltage (% of nominal voltage or more)**
  - 30% AC, 10% DC

- **Pull-in Voltage (% of nominal voltage or less)**
  - 80% AC, 75% DC

- **Max. Voltage (Max. continuous voltage)**
  - 110% of the rated coil voltage

Contact Specifications

- **Contact Type**: 4PDT

- **Contact Material**
  - Fine silver, gold flashed
  - Silver alloy

- **Minimum Switching Requirement**
  - 10mA @ 5VDC
  - 100mA @ 5VDC

- **Max. Contact Rating**
  - Refer to Contact Ratings charts.

- **Dielectric Strength Between Contacts**
  - Between Coil and Contact = 1600V rms
  - Between Poles = 1600V rms

*Note: These devices are rated for 1,000 cycles when used in a motor application. (Per Table 45.1, UL 508).

**Note: UL listed when used with socket 782-4C-SKT. Current limited to rating of relay or socket, whichever is less.

782 Series Contact Ratings (current)

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Resistive</th>
<th>UL</th>
<th>CSA</th>
<th>UL</th>
</tr>
</thead>
<tbody>
<tr>
<td>30VAC</td>
<td>3A</td>
<td>3A</td>
<td>3A</td>
<td></td>
</tr>
<tr>
<td>120VAC</td>
<td>3A</td>
<td>3A</td>
<td>3A</td>
<td>1/10 HP</td>
</tr>
<tr>
<td>240VAC</td>
<td>3A</td>
<td>3A</td>
<td>3A</td>
<td>1/10 HP</td>
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<tr>
<td>30VAC</td>
<td>5A</td>
<td>5A</td>
<td>5A</td>
<td></td>
</tr>
<tr>
<td>120VAC</td>
<td>5A</td>
<td>5A</td>
<td>5A</td>
<td></td>
</tr>
<tr>
<td>240VAC</td>
<td>5A</td>
<td>5A</td>
<td>5A</td>
<td></td>
</tr>
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H782 Series Hermetically Sealed Electromechanical Relay Dimensions

**Dimensions**
inches [mm]

**Figure 1: H782-4C3-xx and H782-4C5-xx**

**Wiring**

Wiring Diagram
Bottom View
Socket for H782 Series Hermetically Sealed Electromechanical Relay

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Price</th>
<th>Maximum Screw Torques</th>
<th>Maximum Wire Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>782-4C-SKT</td>
<td>$3.75</td>
<td>All terminals: 9 in·lbs/1 N·m</td>
<td>All terminals: 12 to 20 AWG, solid or stranded, one or two identical wires</td>
</tr>
</tbody>
</table>

Dimensions
inches [mm]

Figure 2: 782-4C-SKT