H750 Series Hermetically Sealed Electromechanical Relay Selection Guide

H750 series hermetically sealed relays are designed for use in hazardous applications (Class 1, Div 2, Groups A, B, C, D).

**Features**
- Hermetically sealed for use in hazardous locations (Class 1, Div 2, Groups A, B, C, D)
- Octal base design
- Silver Cadmium Oxide, gold flashed contacts
- High open contact dielectric strength (1,500V rms)
- High reliability and long life
- High vibration and shock resistance
- DPDT and 3PDT models

<table>
<thead>
<tr>
<th>Specification</th>
<th>H750 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>DPDT or 3PDT</td>
</tr>
<tr>
<td><strong>Contact Rating</strong></td>
<td>12A</td>
</tr>
<tr>
<td><strong>Base Socket</strong></td>
<td>8-pin or 11-pin spade terminal, 750-2C-SKT/RHS</td>
</tr>
<tr>
<td><strong>Agency Approvals</strong></td>
<td>UL Recognized (E344123), cULus when used with 750 sockets</td>
</tr>
<tr>
<td><strong>Prices starting at</strong></td>
<td>$47.50</td>
</tr>
</tbody>
</table>

**Specifications**

**Part Number** | **Price** | **Coil Voltage** | **Configuration** | **Contact Rating** | **Dimensions** | **Relay Socket** | **Part Number** | **Price** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H750-2C-12D</td>
<td>$47.50</td>
<td>12VDC</td>
<td>DPDT</td>
<td>12A</td>
<td>Figure 1</td>
<td>750-2C-SKT</td>
<td></td>
<td>$47.50</td>
</tr>
<tr>
<td>H750-2C-12A</td>
<td>$50.00</td>
<td>12VAC</td>
<td>DPDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-2C-24D</td>
<td>$47.50</td>
<td>24VDC</td>
<td>DPDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-2C-24A</td>
<td>$50.00</td>
<td>24VAC</td>
<td>DPDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-2C-120A</td>
<td>$50.00</td>
<td>120VAC</td>
<td>DPDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-2C-240A</td>
<td>$58.00</td>
<td>240VAC</td>
<td>DPDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-3C-12D</td>
<td>$54.00</td>
<td>12VDC</td>
<td>3PDT</td>
<td>12A</td>
<td>Figure 2</td>
<td>750-3C-SKT</td>
<td></td>
<td>$4.75</td>
</tr>
<tr>
<td>H750-3C-12A</td>
<td>$54.00</td>
<td>12VAC</td>
<td>3PDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-3C-24D</td>
<td>$51.00</td>
<td>24VDC</td>
<td>3PDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-3C-24A</td>
<td>$51.00</td>
<td>24VAC</td>
<td>3PDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-3C-120A</td>
<td>$54.00</td>
<td>120VAC</td>
<td>3PDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H750-3C-240A</td>
<td>$54.00</td>
<td>240VAC</td>
<td>3PDT</td>
<td>12A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Order socket separately. 750-2C-SKT/750-3C-SKT socket torque 9 lb-in/1.0 N·m
H750 Series Hermetically Sealed Electromechanical Relay Specifications

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>75 Series Contact Ratings (current)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistive</td>
<td>Motor Load</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>Nominal</td>
<td>UL</td>
<td>CSA</td>
<td>UL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28VDC</td>
<td>12A</td>
<td>12A</td>
<td>12A</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120VAC</td>
<td>12A</td>
<td>12A</td>
<td>12A</td>
<td>1/3Hp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>240VAC</td>
<td>12A</td>
<td>12A</td>
<td>12A</td>
<td>1/2Hp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Specifications

- **Service Life**
  - Mechanical: 10 million operations
  - Electrical: 100,000 operations at rated resistive load

- **Operating Temperature**
  - -40°C to 55°C (-40°F to 131°F)

- **Response Time**
  - 20 ms

- **Vibration Resistance**
  - 3 gn at 35–150 Hz

- **Shock Resistance**
  - 10 G

- **Weight**
  - 130g (4.6 oz)

- **Agency Approvals and Standards**
  - UL Recognized file E344123, CSA 244610, RoHS

- **Environmental Protection**
  - IP67 (Class I, Div. 2; Groups A, B, C, D; T5 (DC) and T4A (AC) Temperature Codes)

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

Coil Specifications

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

- **Coil Resistance**
  - 120Ω
  - 18Ω
  - 470Ω
  - 72Ω
  - 1.7 kΩ
  - 7.2 kΩ
  - 12Ω
  - 18Ω
  - 470Ω
  - 72Ω
  - 1.7 kΩ

- **Power Consumption**
  - 2.75 VA (60Hz) AC, 1.2 W DC

- **Dropout Voltage (% of rated voltage)**
  - 10% (AC); 15% (DC)

- **Pull-in Voltage**
  - 85% (AC); 80% (DC)

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

Contact Specifications

- **Contact Type**
  - DPDT
  - 3PDT

- **Contact Material**
  - Silver alloy

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

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

- **Dielectric Strength Between Contacts**
  - Between Coil and Contact: 1600V rms; Between Poles: 1600V rms; Between Open Contacts: 1500V rms

*Note: UL listed when used with sockets 750-2C-SKT, 750-3C-SKT. Current limited to rating of relay or socket, whichever is less.*
H750 Series Hermetically Sealed Electromechanical Relay Specifications

Dimensions

inches [mm]

Figure 1: H750-2C Series 8-pin

Figure 2: H750-3C Series 11-pin

Wiring

H750-2C-xxx wiring diagram

H750-3C-xxx wiring diagram

Note: Contacts and coil shown are internal to the relay

For latest prices, please check AutomationDirect.com
750R Series Socket Dimensions

Dimensions

inches [mm]

Figure 3: 750-2C-SKT

Figure 4: 750-3C-SKT

Wiring

<table>
<thead>
<tr>
<th>75 Series Socket</th>
<th>Spec</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Screw Torque</td>
<td>9 lb·in (1.0 N·m)</td>
<td></td>
</tr>
<tr>
<td>Max Wire Size</td>
<td>Solid or Stranded Cu: two 12–14 AWG (2.5–4 mm²)</td>
<td></td>
</tr>
</tbody>
</table>

Accessory

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>33-796-1</td>
<td>Coil bus connector used to connect multiple relays in parallel. Package includes 5 pairs of bus bars to connect up to 5 relays together.</td>
<td>$3.25</td>
</tr>
</tbody>
</table>