**D-HR Series**

**High Insulation Resistance, High Voltage Relays -5kV, 7.5kV, 10kV & 15kV**

- 5kV, 7.5kV, 10kV or 15kV isolation
- Low contact resistance
- 1x10^4 Ohms minimum insulation resistance
- PCB or flying leads connections
- Ideal for sensitive test and measurement circuits which require low leakage current losses

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**Contact Specification**

<table>
<thead>
<tr>
<th>Contact Material</th>
<th>Unit Condition</th>
<th>5kV SPNO</th>
<th>7.5kV SPNO</th>
<th>10kV SPNO</th>
<th>15kV SPNO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhodium</td>
<td></td>
<td>50</td>
<td>7.5</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Tungsten</td>
<td></td>
<td>50</td>
<td>7.5</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

**Isolation across contacts**

- DC or AC peak
- >10^6 for all voltages

**Switching Power Max.**

- W
- 50
- 50
- 50
- 50

**Switching Voltage Max.**

- V DC or AC peak
- 1500
- 1500
- 1500
- 1500

**Contact Resistance**

- max (typical)
- 250 (100)

**Coil Specification**

- Voltage
- 5V, 12V, 24V

**Operate / Release Voltage**

- V DC
- 0.5
- 1.25
- 2.5

**Operate Time**

- ms
- 2.0
- 2.0
- 2.0
- 2.0

**Release Time**

- ms
- 2.0
- 2.0
- 2.0
- 2.0

**Resistance**

- Ω
- 150
- 200
- 300
- 500

**Release Time Password**

- ms
- 2.0
- 2.0
- 2.0

**Moulding Ref. No.**

- R=Rhodium, T=Tungsten

**Part Numbering System**

- D-HR = High Insulation Resistance Version

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**Very high isolation voltages, up to 15kV, are achieved through the use of high vacuum reed switches. Rhodium or tungsten contacts make these relays suitable for high reliability applications, such as cardiac defibrillators, test equipment and high voltage power supplies.**

The rhodium contact relays have low contact resistance, whilst the tungsten contact relays can switch higher voltages.

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**Please refer to this document for circuit design notes:**

http://www.cynergy3.com/blog/application-notes-reed-relays-0
**STANDARD**
(e.g. DAT71210-HR)

- **Dimensions:**
  - Length: 60.0 (2.36")
  - Width: 18.5 (0.73")
  - Height: 4.0 (0.15")

- **Pins:**
  - 4 Pins: 0.635 (0.025") Square

**CIRCUIT DIAGRAMS**
(ALL VARIANTS)

- **FORM A (NO):**
  - Pins: 1, 2, 3, 4

- **FORM B (NC):**
  - Pins: 1, 2, 3, 4

**NOTE:** COIL POLARITY IS IMPORTANT FOR FORM B VARIANT ONLY.

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**FLYING LEAD**
(e.g. DAT71210F-HR)

- **Dimensions:**
  - Length: ~300
  - Width: 50.8 (2.0")

- **Cable:**
  - UL3239, 22AWG, 20kV, Nom. 3.2mm OD (White)

- **Pins:**
  - 4 Pins: 0.635 (0.025") Square

**NOTE:** PINS WHICH ARE NOT NUMBERED HAVE NO ELECTRICAL CONNECTION.

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Please refer to this document for circuit design notes:
http://www.cynergy3.com/blog/application-notes-reed-relays-0