HTT Series Contacts

HTT Series contacts are high temperature resistant versions of the ultra reliable Hypertac® hyperboloid contact technology. Made from corrosion resistant materials that enable continuous operation in extreme environments well above 400° C ambient, HTT Series contacts are ideal for mission critical interconnect systems within thermic environments.

With the proven performance of Hypertac sockets, HTT Series contacts can significantly outperform and outlast any previous high temperature contact option. Engineers can now select contacts which are both immune to harsh shock and vibration conditions and are capable of dwelling in a wide range of high temperature states.

Able to withstand numerous thermal cycles, HTT Series contacts behave consistently in ambient conditions from -65° C to 440° C with no appreciable performance degradation. Whether the thermal environment is composed of rapid heating and cooling as in landing gear, brake systems and weapon discharges, or is characterized by long durations as in aircraft engines, gas turbines and down-hole drill rigs, HTT Series contacts ensure electrical connectivity when failure is not an option.

For decades, military, aerospace and industrial engineers have trusted Hypertronics to provide interconnect solutions for the most demanding applications. Now Hypertronics extends its proven reliability for rugged solutions capable of defeating the most extreme environmental conditions by introducing the HTT Series for high temperature demands.

HTT Series contacts are ideal for critical high temperature applications such as:

- Rocket, jet and turbine engines
- Industrial machinery
- Mining and geological survey
- Oil and gas exploration
- Power generation
- Armament and fire control

Features and Benefits

- Operating temperatures in excess of 440° C
- Corrosion resistant
- Proven Hypertac technology
  - Multiple points of contact
  - Immune to severe shock and vibration
  - Self-cleaning wiping action
HTT Series contacts have been extensively tested to demonstrate their superior benefits in thermal conditions. The contact type comparison table details the difference between an HTT Series contact and standard Hypertac contact. Given a 10 Amp current rating, an HTT Series contact operates continuous at 440° C while a standard Hypertac contact is limited to 180° C.

### Contact Type Comparisons (Per Contact)

<table>
<thead>
<tr>
<th>Performance Parameter</th>
<th>Standard 1.50mm Hypertac Contact</th>
<th>1.50mm HTT Series Contact</th>
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</thead>
<tbody>
<tr>
<td>Resistance, LLCR</td>
<td>&lt; 2.5 milliohms</td>
<td>10 milliohms</td>
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<tr>
<td>Current Rating</td>
<td>8 to 10 Amps</td>
<td>10 Amps</td>
</tr>
<tr>
<td>Extraction Forces¹</td>
<td>5 ounces maximum</td>
<td>20 ounces maximum</td>
</tr>
<tr>
<td>Maximum Temperature²</td>
<td>125° C typical, 180° C maximum</td>
<td>440° C maximum</td>
</tr>
</tbody>
</table>

¹ Methods available to reduce insertion force dependent upon application.
² While conducting maximum current in mated condition.
³ Tested at 6 Amps continuous current in 440° C dwell for 500 hours.

Testing was based on MIL-STD-1344A with thermal cycles lasting hundreds of hours. The Ambient Temperature vs. Current chart provides a comparative analysis of ambient temperatures relative to current amperage for a 1.50mm HTT Series contact and a standard 1.5mm Hypertac contact.