Shielded HyperGrip® Connectors
Meet Demanding Medical Industry Requirements

HyperGrip® Shielded High Reliability Connectors

As more sophisticated digital medical equipment enters the market, and data transfer rates continuously increase, the use of shielded connectors will be required to protect medical device circuitry from harmful electromagnetic (EMI) and radio frequency interference (RFI).

Hypertronics’ Shielded HyperGrip circular connectors are a stylish alternative designed to eliminate reliability issues commonly associated with commodity-type connector solutions. These connectors provide shielding up to 3 GHz with an attenuation of 50dB. The shielding feature provides EMI/RFI protection from the shielded cable through to the device.

The Shielded HyperGrip plug connectors offer a minimum of 20,000 mating cycles and have a current carrying capacity of one amp per contact. They are also shock and vibration resistant as well as self cleaning.

Hypertronics Shielded HyperGrip connectors have a greater mating life cycle and provide superior performance capabilities than standard interconnect solutions. Ownership costs are drastically reduced by eliminating the need for warranty repairs and/or replacements of cable interconnects within 20,000 cycles.

The HyperGrip offers unparalleled performance of the Hypertac® contact technology. Known for providing high cycle life, low contact resistance, low insertion force, reliability under extreme conditions, maximum contact performance, and excellent wiping action, HyperGrip is ideal for a variety of critical applications including portable ultrasound devices, digital X-Ray sensors, patient monitors, a variety of therapeutic devices and integrated imaging systems, where dependability is critical.

Product Review Sheet

- Shielding - EMI / RFI Protection
- Color Coding (5 different colors available)
- Front or Rear Panel Mount Receptacle Design
- Contacts Fingerproof to IEC60601
- Hypertac® Contact Technology
- Customer Keyable (6 different keyable positions)
- Available with 12, 19, or 33 contacts
Shielded HyperGrip®

Features & Benefits
• Shielding-EMI/RFI protection
• Push/Pull latching design – simple, one hand quick disconnect
• Customer keyable – easily keyed in one of the six different standard keying positions to prevent mis-matching, which could result in catastrophic consequences
• Aesthetic design – softly shaped and easy to clean
• Color coding – available in 5 colors to provide visual indication for efficient mating
• Integrated strain relief available–prevents cable wire fatigue due to bending
• Front or rear panel mount receptacle design – option to mount the harness assembly from inside or outside the device enclosure

Materials
• High-end engineering plastic components
  - Flammability rated to UL94V-0 on thermoplastic components
  - High temperature – rated to 185º C (in unmated condition)

Contacts
• Hypertac contacts – up to 100,000 mating cycles
• Crimp/solder cup contact termination

Shielded Connectors –
General Specifications

<table>
<thead>
<tr>
<th>Contacts per Connector</th>
<th>HG2: 12</th>
<th>HG3: 19</th>
<th>HG4: 33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shielding Effectiveness</td>
<td>Up to 3Ghz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attenuation</td>
<td>50 dB maximum @ 3Ghz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Resistance</td>
<td>8 milliohms</td>
<td></td>
<td></td>
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<tr>
<td>Extraction Force (Contact)</td>
<td>0.5–1.6 oz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Rating</td>
<td>1 amp per contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connector Mating Cycles</td>
<td>Up To 20,000 (contacts to 100,000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40º C to 125º C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Material – Pin</td>
<td>Phosphor bronze</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Finish</td>
<td>Gold over nickel plate</td>
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<td></td>
</tr>
<tr>
<td>Contact Material – Socket</td>
<td>Brass body components</td>
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<tr>
<td>– Finish</td>
<td>Beryllium copper wires</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Body components/wires</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Gold over nickel</td>
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US Patent numbers:
7,326,091 B2
7,661,995 B2
D 596,127 S

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*Dimensions in inches (mm)