A robust and powerful coaxial High Frequency transmission (BMA) now available in any size 8 SOURIAU insert of D38999 Series III.

Spring HF contact ■ Vibration and High Frequency.

Largest Flexibility ■ 16 layouts available.

Qualified coaxial contact ■ Interface according MIL-STD-348A/321.

Easy mounting ■ Removable contact.
Technical features

BMA contact features

For .086” flexible cable

Electrical

• Impedance: 50Ω
• Frequency range: DC 18GHz
• Dielectric withstanding voltage: 1.5 kVrms, 50Hz (at sea level)
• Contact resistance: ≥ 5 000 MΩ
• Return loss (DC-18GHz): < -17dB (mated connector)
• RF leakage interface only (fully mated): ≥ 90 dB f (GHz) measured at interface with reference planes being in true alignment.
• RF testing voltage: 1.0 kVrms, 5 MHz (at sea level)
• Admissible power: ≤ 300 W at 3 GHz (at sea level & room T°)

Environmental

• Temperature range: -65°C +125°C
• Thermal shock: MIL-STD-202, method 107, condition B

Description

• Quick screw coupling D38999 connector
• Shell available in aluminum, composite, Stainless steel, Titanium & Bronze
• 16 layouts available with coaxial contact
• High Frequency coaxial contact: DC 18GHz
• Qualified coaxial contact according to MIL-STD-348A/321
• Removable coaxial contact
• Contacts delivered with boots

Connector features

Mechanical

• Shell material & plating:
  . Aluminum: Cadmium olive drab (W)
  . Nickel (F)
  . Black zinc nickel (Z)
  . Green zinc cobalt (ZC)
  . Composite: Cadmium olive drab (J)
  . Nickel (M)
  . Without plating (X)
  . Stainless steel: Passivated (K)
  . Nickel (S)
  . Titanium: Without plating (TT)
  . Nickel (TF)
  . Bronze: Without plating
• Insulator: Thermoplastic
• Grommet and interfacial seal: Silicone elastomer
• Contact endurance: 1000 mating cycles
• Connector endurance: 500 mating cycles

Electrical

• Shell continuity:
  . F, S & TF: 1 mΩ
  . J & M: 3 mΩ
  . W, Z & ZC: 2.5 mΩ
  . Bronze: 5 mΩ
  . K & TT: 10 mΩ
• Shielding:
  . F & M: 85 db at 1 GHz
  . K & TT: 45 db at 10 GHz
  . W & Z: 50 db at 10 GHz
  . F, S & TF: 65 db at 10 GHz
  . Bronze: 85 db at 10 GHz
  . J: 90 db at 10 GHz
  . ZC: Consult us

Environmental

• Temperature range:
  . W, ZC, J, X & bronze: -65°C +175°C
• Salt spray:
  . F, S & TF: 48 Hours
  . ZC: 250 Hours
  . W, Z, K, TT & bronze: 500 Hours
  . J, M & X: 2000 Hours

/\ Caution: be careful that your application doesn’t exceed contact specification.
Contact layouts
Specification 737 mandatory

- Contact #22D
- Contact #12
- Contact #20
- Contact #8 Coax
- Contact #16

<table>
<thead>
<tr>
<th>11</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Contact #8 Coax](1#8 Coax)</td>
<td>![3#8 Coax](2#8 Coax)</td>
</tr>
<tr>
<td><img src="3#22D" alt="3#22D Coax" /></td>
<td><img src="2#12" alt="2#12 Coax" /></td>
</tr>
<tr>
<td>![1#8 Coax](1#8 Coax)</td>
<td>![2#8 Coax](2#8 Coax)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19</th>
<th>21</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="14#22D" alt="14#22D Coax" /></td>
<td><img src="18#20" alt="18#20 Coax" /></td>
<td>![6#8 Coax](6#8 Coax)</td>
</tr>
<tr>
<td>![4#8 Coax](4#8 Coax)</td>
<td><img src="4#12" alt="4#12 Coax" /></td>
<td>![2#8 Coax](2#8 Coax)</td>
</tr>
<tr>
<td>![4#8 Coax](4#8 Coax)</td>
<td>![2#8 Coax](2#8 Coax)</td>
<td>![6#8 Coax](6#8 Coax)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>![2#8 Coax](2#8 Coax)</td>
</tr>
</tbody>
</table>
Ordering information

<table>
<thead>
<tr>
<th>Basic Series</th>
<th>8D</th>
<th>0</th>
<th>25</th>
<th>W</th>
<th>46</th>
<th>P</th>
<th>N</th>
<th>737</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell style:</td>
<td>0: Square flange receptacle</td>
<td>1: In line receptacle</td>
<td>7: Jam nut receptacle</td>
<td>5: Plug with RFI shielding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shell size:</td>
<td>11, 17, 19, 21, 23, 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact layout:</td>
<td>See previous page</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact type:</td>
<td>P: Pin</td>
<td>S: Socket</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation:</td>
<td>N, A, B, C, D, E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specification (mandatory):</td>
<td>737: Coaxial contacts - for .086” flexible cable</td>
<td>747: Coaxial contacts - for .141” flexible cable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For other material and configuration (integrated clinch nuts, double flange, other cables, ...) please consult us.

Recommended cables

<table>
<thead>
<tr>
<th>Designation</th>
<th>Part number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.086” flexible cable</td>
<td>Multiflex 86</td>
<td>Outer conductor contact Soldered</td>
</tr>
<tr>
<td>.141” flexible cable</td>
<td>Multiflex 141</td>
<td></td>
</tr>
</tbody>
</table>

For other cables please consult us.

Dimensions

For shells dimensions, please see «8D Series, MIL-DTL-38999 Series III» SOURIAU catalog.

www.souriau.com
## Assembly Instruction

<table>
<thead>
<tr>
<th>Picture</th>
<th>Process</th>
<th>Feature / Check</th>
<th>Tools required</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td>Dip the cut length of cable in flux and tin. Cut the jacket to the braid. Remove jacket.</td>
<td>The solder must flow at rear for min. 7 mm.</td>
<td>Stanley blade</td>
</tr>
<tr>
<td><img src="image2.png" alt="Diagram" /></td>
<td>Remove cable dielectric and tinned braid according to diagram. Form tip of centre contact to a 90° cone. Slide Taper sleeve A and nipple B over cable.</td>
<td>Do not damage inner conductor, dielectric and braid of cable.</td>
<td>Stanley blade Tip trimmer</td>
</tr>
<tr>
<td><img src="image3.png" alt="Diagram" /></td>
<td>Slide ferrule C over cable, flush to dielectric. Solder at X. Avoid excessive heat, immediately cool down and clean with alcohol.</td>
<td>If the cable does not fit into the cable entry, use a flat-nose plier to calibrate the braid. Center conductor of cable must be exactly centered.</td>
<td>Soldering iron Solder Flat-nose pliers</td>
</tr>
</tbody>
</table>
| ![Diagram](image4.png) | Push prepared cable into connector body D and tighten nipple B. Taper sleeve A will be used for MIL-connector. | Torque: 3 Nm.                                        | Male contact: Torque wrench AF.6 (3 Nm) Spanner AF.5.5  
Female contact: Torque wrench AF.6 (3 Nm) Spanner AF.6 |