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.
8D Series | BMA Coaxial Contacts

**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)
- **Insulation resistance**: ≥ 5 000 MΩ
- **Contact resistance**:
  - Center contact: ≤ 2 mΩ
  - Outer contact: ≤ 2 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 +175°C
- **Thermal shock**: MIL-STD-202, method 107, condition B

**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, Z & ZC, J, X & bronze: -65°C +175°C
  - F, Z, M, S, TT & TF: -65°C +200°C
- **Salt spray**:
  - F, S & TF: 48 Hours
  - ZC: 250 Hours
  - W, Z, K, TT & bronze: 500 Hours
  - J, M & X: 2000 Hours

**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

**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

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

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

11

- 80
  - 1#8 Coax

17

- 02
  - 3#22D
  - 1#8 Coax
- 22
  - 2#12
  - 2#8 Coax
- 75
  - 2#8 Coax

19

- 18
  - 14#22D
  - 4#8 Coax

21

- 20
  - 18#20
  - 2#8 Coax
- 48
  - 4#8 Coax
- 75
  - 4#8 Coax
- 77
  - 17#22D
  - 2#8 Coax

23

- 06
  - 6#8 Coax

25

- 07
  - 2#8 Coax
  - 97#22D
- 08
  - 8#8 Coax
- 17
  - 36#22D
  - 6#8 Coax
- 20
  - 10#20, 13#16
  - 4#12 Coax
  - 3#8 Coax
- 41
  - 22#22D, 3#20
  - 11#16, 2#12
  - 3#8 Coax
- 46
  - 40#20, 4#16
  - 2#8 Coax
### 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>
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<tr>
<td>0: Square flange receptacle</td>
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<td>1: In line receptacle</td>
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<td>7: Jam nut receptacle</td>
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<td>5: Plug with RFI shielding</td>
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<tr>
<td>Shell size:</td>
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<td>W: Olive drab cadmium</td>
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<td>F: Nickel</td>
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<td>Z: Black zinc nickel</td>
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<td>Contact layout:</td>
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<td>See previous page</td>
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<td>Contact type:</td>
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<td>P: Pin</td>
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<td>S: Socket</td>
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<tr>
<td>Orientation:</td>
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<td>N, A, B, C, D, E</td>
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<tr>
<td>Specification (mandatory):</td>
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<td>737: Coaxial contacts - for .086” flexible cable</td>
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<td>747: Coaxial contacts - for .141” flexible cable</td>
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</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" 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" 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" 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>
<tr>
<td><img src="image4" alt="Diagram" /></td>
<td>Push prepared cable into connector body D and tighten nipple B. Taper sleeve A will be used for MIL-connector.</td>
<td>Torque: 3 Nm.</td>
<td>Male contact: Torque wrench AF.6 (3 Nm) Spanner AF.5.5 Female contact: Torque wrench AF.6 (3 Nm) Spanner AF.6</td>
</tr>
</tbody>
</table>

For further information contact us at contactmilaero@souriau.com or visit our web site www.souriau.com