



## 8D with High Frequency Coaxial Contact

A robust and powerfull 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)
- **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 +125°C
- **Thermal shock:** MIL-STD-202, method 107, condition B

- **Moisture resistance:** MIL-STD-202, method 106
- **Corrosion:** Salt spray test according to MIL-STD-202, method 101, condition B
- **Vibration:** MIL-STD-202, method 204, condition D
- **Shock:** MIL-STD-202, method 213, condition I

/!\ Caution: be careful that your application doesn't exceed contact specification.

## 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

- **Shock:** 300g, 3 ms (EN 2591-D2 method A)
- **Vibration:**
  - . Sinus:
    - . 10 à 2000 Hz, 3x12 hrs
    - (60g, 140 - 2000 Hz) with T° cycling
  - . Random:
    - . 50 to 2000 Hz, 2x8 Hrs
    - (1g2/ Hz, 100 - 2000Hz) at T° max.
    - . 25 to 2000 Hz, 2x8 Hrs
    - (5g2/ Hz, 100 - 300Hz) at ambient T°

Test with accessories in acc with EN2591-D3

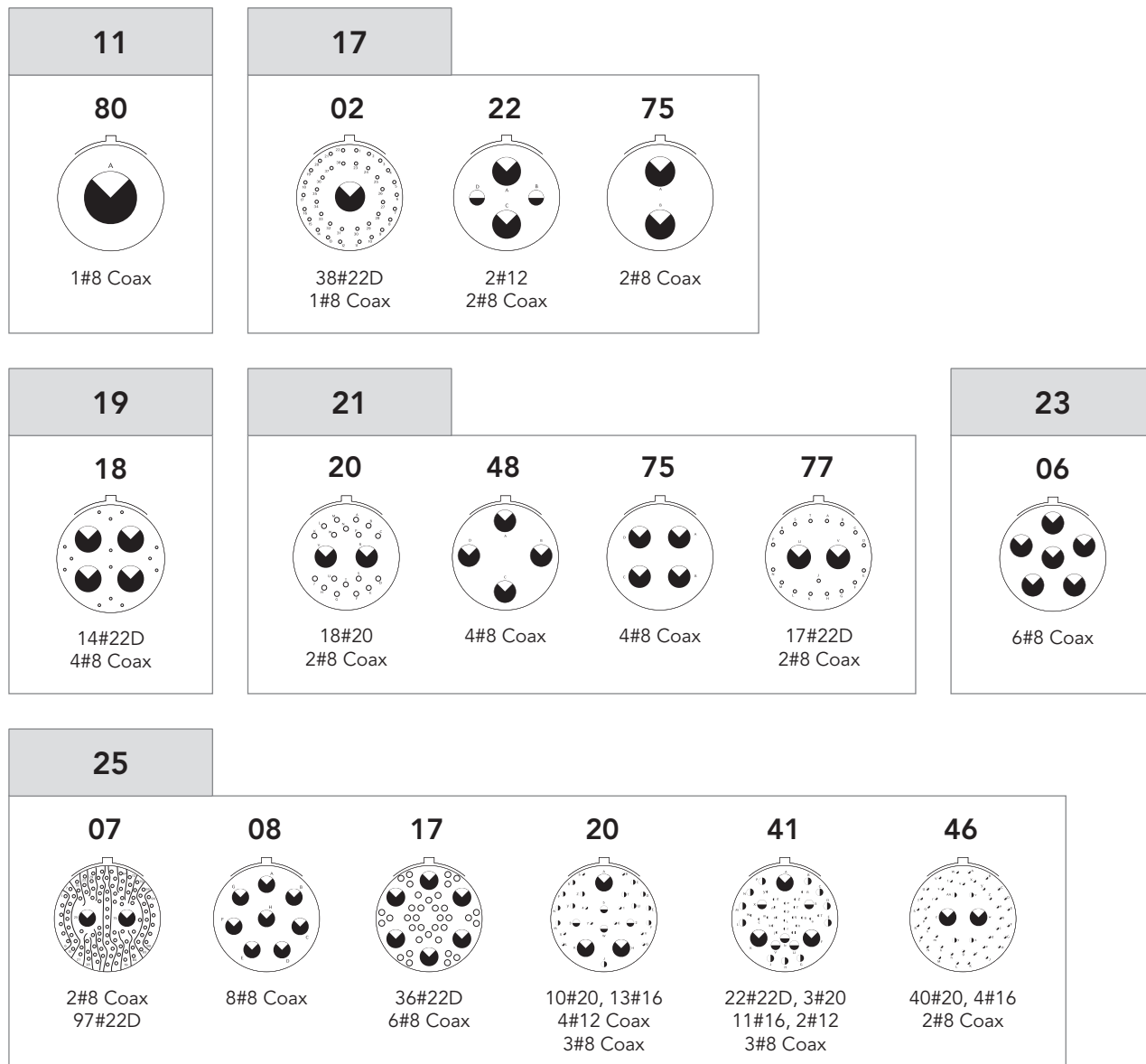
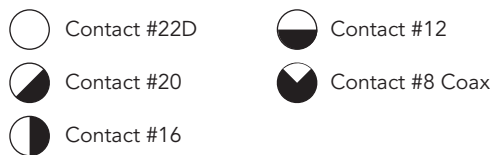
## Electrical

- **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
  - . F, Z, M, K, 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

## Contact layouts Specification 737 mandatory



## Ordering information

<b>Basic Series</b>	<b>8D</b>	<b>0</b>	<b>25</b>	<b>W</b>	<b>46</b>	<b>P</b>	<b>N</b>	<b>737</b>
<b>Shell style:</b>								
0: Square flange receptacle								
1: In line receptacle								
7: Jam nut receptacle								
5: Plug with RFI shielding								
<b>Shell size:</b>								
11, 17, 19, 21, 23, 25								
<b>Aluminum plating:</b>								
W: Olive drab cadmium								
F: Nickel								
Z: Black zinc nickel								
<b>Contact layout:</b>								
See previous page								
<b>Contact type:</b>								
P: Pin								
S: Socket								
<b>Orientation:</b>								
N, A, B, C, D, E								
<b>Specification (mandatory):</b>								
737: Coaxial contacts - for .086" flexible cable								
747: Coaxial contacts - for .141" flexible cable								

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

## Recommended cables

Designation	Part number	Description	
.086" flexible cable	Multiflex 86	Outer conductor contact	Soldered
.141" flexible cable	Multiflex 141		

For other cables please consult us.

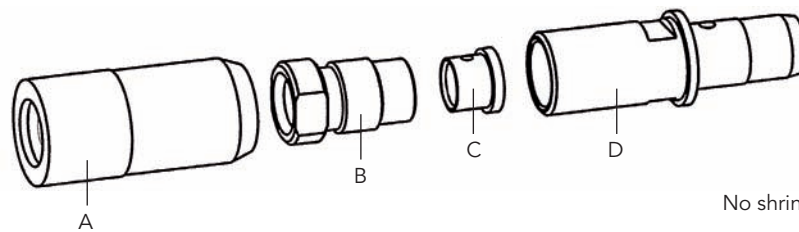
## Dimensions



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

[www.souriau.com](http://www.souriau.com)

## Assembly Instruction



No shrinking sleeve allowed.

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

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or visit our web site [www.souriau.com](http://www.souriau.com)