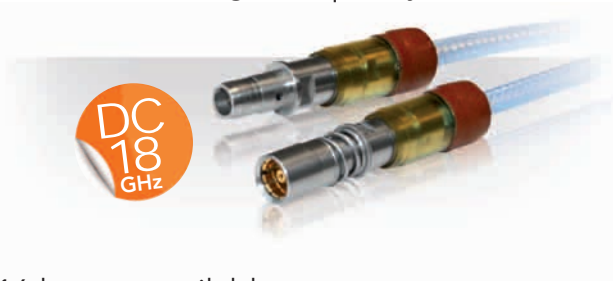




8D with High Frequency Coaxial Contact

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.



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

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

- **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°

Electrical

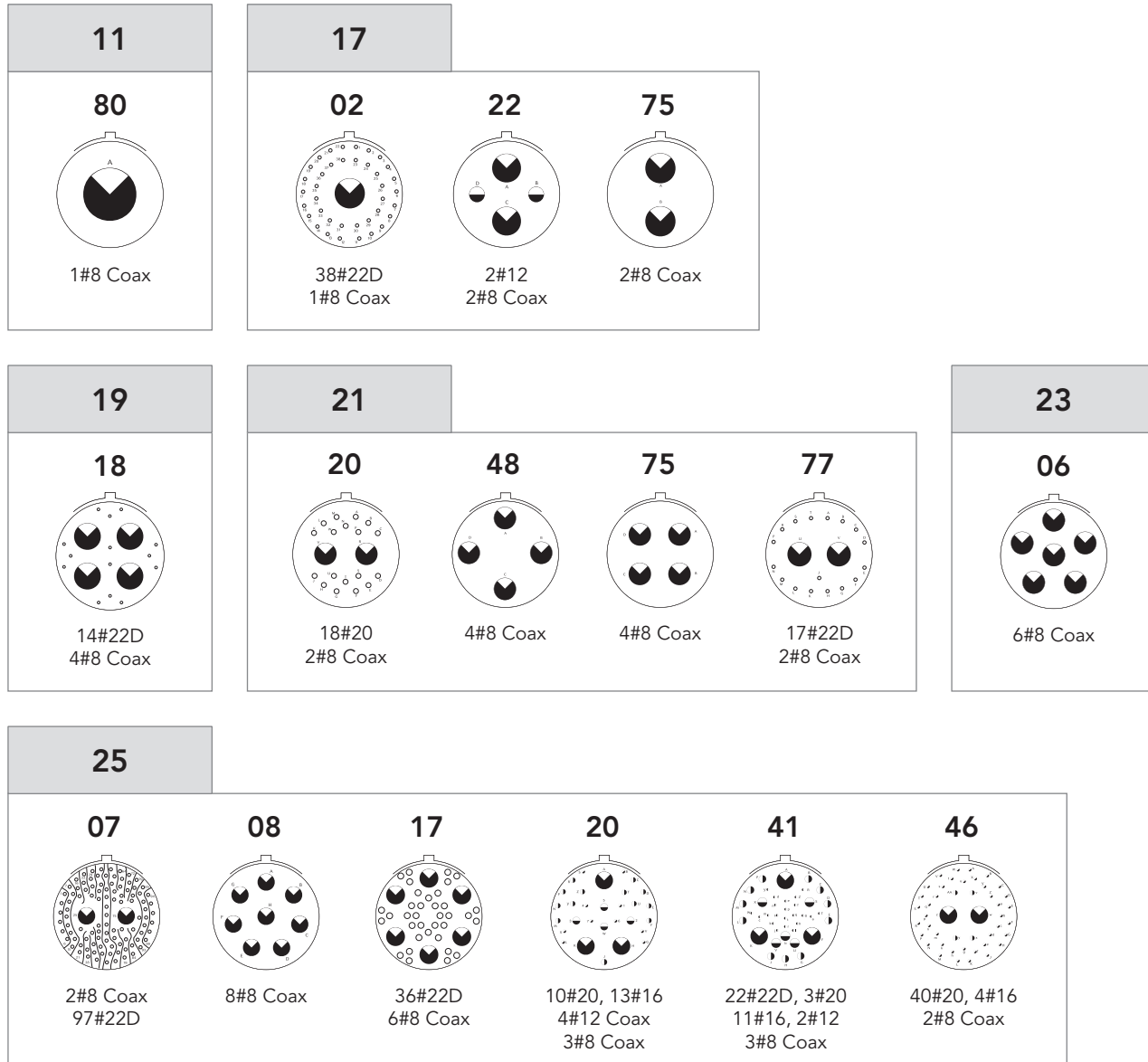
- **Shell continuity:**
 - . F, S & TF: 1 mΩ . J & M: 3 mΩ
 - . W, Z & ZC: 2.5 mΩ . Bronze: 5 mΩ
 - . K & TT: 10 mΩ
- **Shielding:**
 - . F & M: 85 db at 1 GHz
 - . K & TT: 45 db at 10 GHz
 - . W & Z: 50 db at 10 GHz
 - . F, S & TF: 65 db at 10 GHz
 - . Bronze: 85 db at 10 GHz
 - . J: 90 db at 10 GHz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

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



Ordering information

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

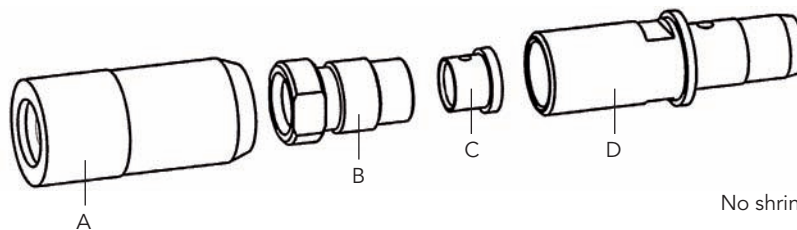
Dimensions



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

www.souriau.com

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>	<p>Stanley blade</p>
	<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>	<p>Stanley blade Tip trimmer</p>
	<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>	<p>Soldering iron Solder Flat-nose pliers</p>
	<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>

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