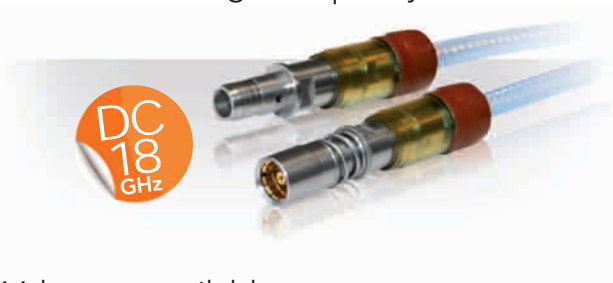




8D with High Frequency Coaxial Contact

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

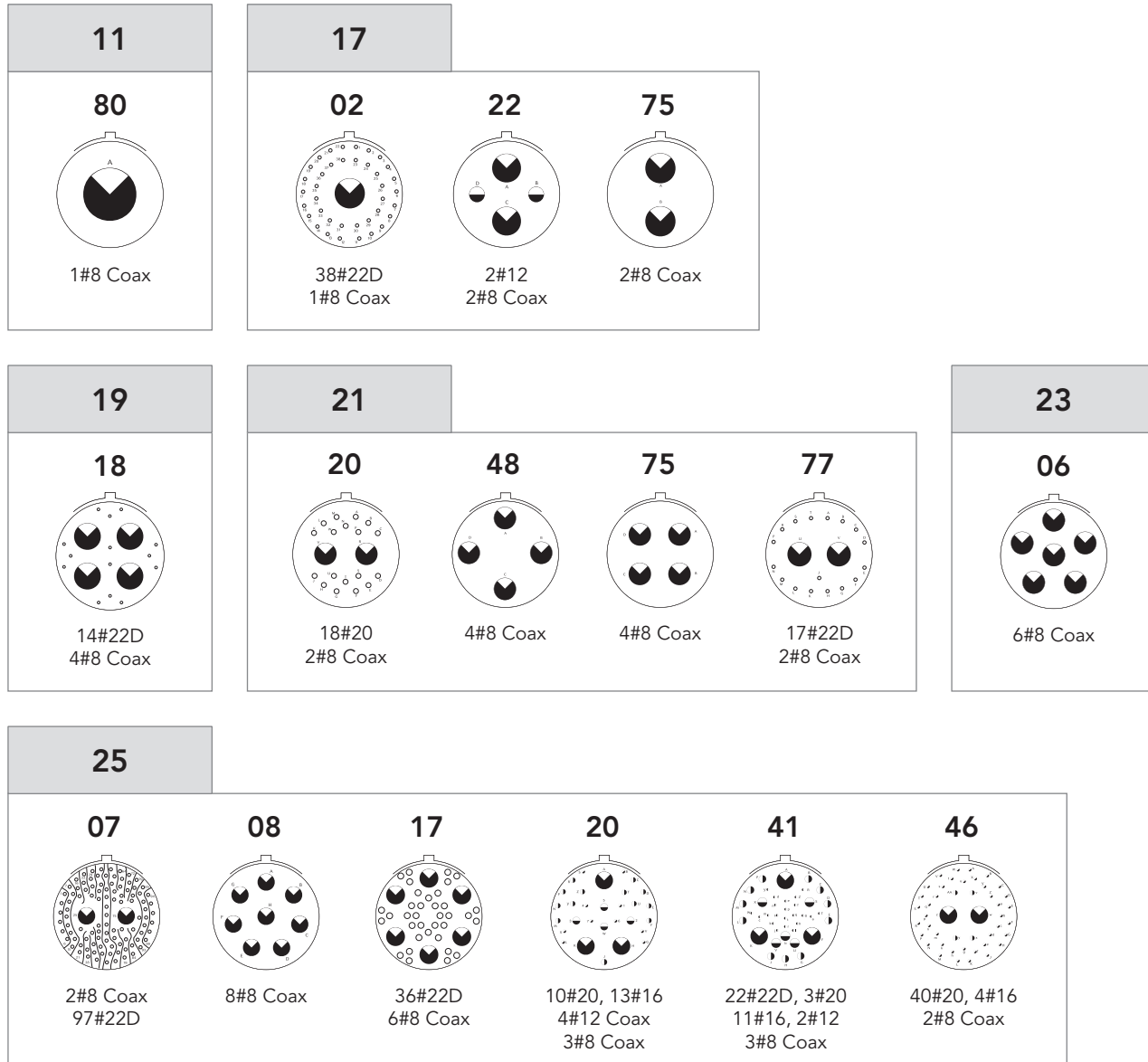
- **Shell continuity:**
 - . F, S & TF: 1 mΩ . J & M: 3 mΩ
 - . W, Z & ZC: 2.5 mΩ . Bronze: 5 mΩ
 - . K & TT: 10 mΩ
- **Shielding:**
 - . F & M: 85 db at 1 GHz
 - . K & TT: 45 db at 10 GHz
 - . W & Z: 50 db at 10 GHz
 - . F, S & TF: 65 db at 10 GHz
 - . Bronze: 85 db at 10 GHz
 - . J: 90 db at 10 GHz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

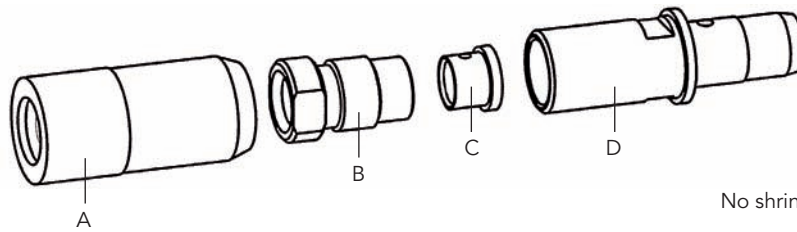
Dimensions



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> |

Your local contact

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