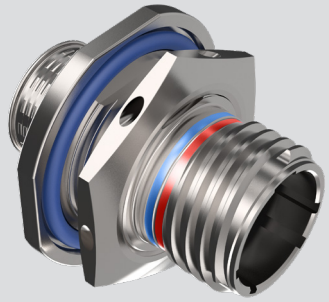
*ENVIRONMENTAL, MICRO MINIATURE CIRCULAR*

# Series 806 Mil-Aero Connectors

## 806-020 Jam-nut Receptacle Connectors



806-020 Micro miniature Series 806 connectors save size and weight compared to conventional aerospace-grade circular connectors. These high performance connectors are suitable for harsh environmental areas such as unpressurized aircraft zones subject to vibration, moisture, altitude, and temperature extremes. Integral Nano Band platform or metric accessory threads available. Insert arrangements support size #22HD, #20HD, #16, #12, and #8 snap-in, rear-release contacts.

### Features

- Triple-start stub ACME mating thread
- High density #20HD and #22HD arrangements for reduced size and weight plus #16, #12, and #8 arrangements and combo layouts
- Aerospace-grade materials, construction
- Snap-in crimp contacts

### Specifications

- Operating temperature:
  Finishes ME, MT, Z1: -65°C to +200°C
  Finishes NF, ZR: -65°C to +175°C
- Dielectric withstanding voltage
  #20HD contacts:1800 VAC
  #22HD contacts: 1300 VAC
  #16 contacts: varies; contact factory
  #12 contacts: varies; contact factory
  #8 contacts: varies; contact factory
- Mating durability: 500 cycles
- Mechanical shock: EIA-364-27, 300g.
- Vibration (sine): MIL-DTL-38999M, 60g.
- Vibration (random) EIA-364-28 Condition VI, Letter J, 43.92 Grms, +200°C
- High Impact shock: MIL-S-901 Grade A
- Humidity: EIA-364-31 Method 4
- Salt spray (dynamic): EIA-364-26, 500 hours (96 hours for nickel-plated versions)
- Fluid immersion: EIA-364-10
- Altitude immersion: EIA-364-03 75,000 feet altitude

### Connector Construction

- Shell and jam-nut: aluminum or stainless steel
- Contacts: copper alloy, gold plating
- Wire grommet: fluorosilicone
- Dielectric inserts: high grade rigid dielectric
- Panel O-ring: fluorosilicone
- Contact retention clips: copper alloy
- Retainer rings: stainless steel, passivated

### How To Order

| *SAMPLE PART NUMBER* | **806-020** | **-ME** | **10-15** | **S** | **M** | **A** |
|---|---|---|---|---|---|---|
| **Product** | **806-020** = Jam-nut Receptacle | | | | | |
| **Shell Material and Finish** | **ME** = Aluminum, Electroless Nickel<br>**MT** = Aluminum, Ni/PTFE<br>**ZR** = Aluminum, Black Zinc-Nickel<br>**NF** = Aluminum, Olive Drab Cadmium<br>**Z1** = Stainless Steel, Passivated | | | | | |
| **Arrangement Number (Shell Size - Insert Arr.)** | See Table 1 | | | | | |
| **Contact Type** | **P** = Pin **A** = Pin connector, less contacts<br>**S** = Socket **B** = Socket connector, less contacts<br>For datalink contacts (including El Ochito) order connector without contacts and order datalink contacts separately | | | | | |
| **Shell Style** | **M** = Metric accessory threads<br>**B** = Nano band platform | | | | | |
| **Polarization** | **A B C D E F** | | | | | |

### Table I: Shell Size - Insert Arrangement

| Contact Layout | Number of Contacts | | | | |
|---|---|---|---|---|---|
| | 22HD | 20HD | 16 | 12 | 8 |
| **7-3** | 3 | | | | |
| **8-4** | 4 | | | | |
| **8-7** | 7 | | | | |
| **9-11** | 11 | | | | |
| **10-15** | 15 | | | | |
| **11-19** | 19 | | | | |
| **12-26** | 26 | | | | |
| **14-39** | 39 | | | | |
| **16-60** | 60 | | | | |
| **18-85** | 85 | | | | |
| **20-110** | 110 | | | | |
| **22-140** | 140 | | | | |
| **24-186** | 186 | | | | |
| **8-3** | | 3 | | | |
| **9-5** | | 5 | | | |
| **10-8** | | 8 | | | |
| **11-10** | | 10 | | | |
| **12-15** | | 15 | | | |
| **14-20** | | 20 | | | |
| **16-31** | | 31 | | | |
| **18-41** | | 41 | | | |
| **20-55** | | 55 | | | |

| Contact Layout | Number of Contacts | | | | |
|---|---|---|---|---|---|
| | 22HD | 20HD | 16 | 12 | 8 |
| **22-69** | | 69 | | | |
| **24-92** | | 92 | | | |
| **8-1** | | | 1 | | |
| **10-2** | | | 2 | | |
| **11-4** | | | 4 | | |
| **12-5** | | | 5 | | |
| **14-7** | | | 7 | | |
| **16-12** | | | 12 | | |
| **18-15** | | | 15 | | |
| **20-22** | | | 22 | | |
| **22-24** | | | 24 | | |
| **24-35** | | | 35 | | |
| **9-1** | | | | 1 | |
| **12-2** | | | | 2 | |
| **14-3** | | | | 3 | |
| **16-4** | | | | 4 | |
| **16-7** | | | | 7 | |
| **18-8** | | | | 8 | |
| **20-11** | | | | 11 | |
| **22-13** | | | | 13 | |
| **24-19** | | | | 19 | |
| **10-1** | | | | | 1 |
| **16-2** | | | | | 2 |

| Contact Layout | Number of Contacts | | | | |
|---|---|---|---|---|---|
| | 22HD | 20HD | 16 | 12 | 8 |
| **18-3** | | | | | 3 |
| **20-4** | | | | | 4 |
| **22-5** | | | | | 5 |
| **24-8** | | | | | 8 |
| **10-8A** | 6 | | 2 | | |
| **11-13** | 11 | | 2 | | |
| **12-27** | 26 | | 1 | | |
| **14-21** | 17 | | 4 | | |
| **16-41** | 37 | | 4 | | |
| **18-59** | 55 | | 4 | | |
| **11-14** | 13 | | | 1 | |
| **12-14** | 12 | | | 2 | |
| **14-22** | 20 | | | 2 | |
| **16-32** | 28 | | | 4 | |
| **16-42** | 40 | | | 2 | |
| **18-62** | 60 | | | 2 | |
| **14-20A** | 19 | | | | 1 |
| **16-22** | 20 | | | | 2 |
| **18-21** | 18 | | | | 3 |
| **20-28** | 24 | | | | 4 |
| **22-44** | 40 | | | | 4 |
| **24-97** | 93 | | | | 4 |

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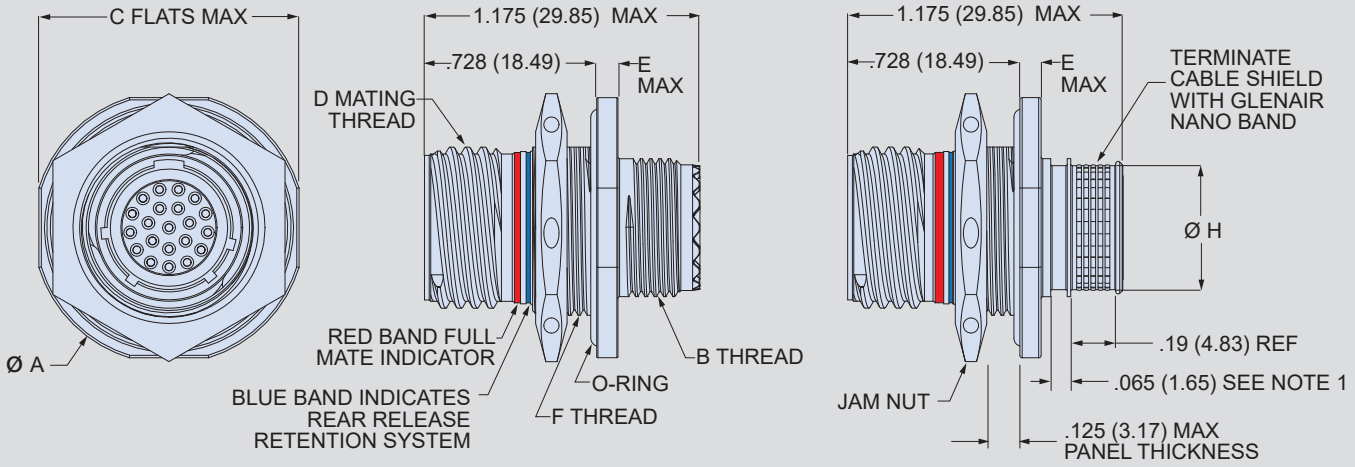
Dimensions in Inches (millimeters) are subject to change without notice.
Rev 05.15.24

# Series 806
# Mil-Aero Connectors

## 806-020 Jam-nut Receptacle Connectors



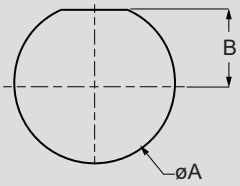

**SHELL STYLE M**
METRIC ACCESSORY THREAD

**SHELL STYLE B**
NANO BAND PLATFORM

**806-020 Receptacle Dimensions**

| Shell Size | øA Max | B Thread | C Max | D Mating Thread | E Max | F Thread | øH |
|---|---|---|---|---|---|---|---|
| 7 | .918 (23.32) | M8x1.0-6g-0.100R | .858 (21.79) | .5000-.067P-.2L-TS-2A | .100 (2.54) | M13x1.0-6g-0.100R | .265 (6.73) |
| 8 | .980 (24.89) | M10x1.0-6g-0.100R | .920 (23.37) | .5000-.067P-.2L-TS-2A | .100 (2.54) | M15x1.0-6g-0.100R | .327 (8.31) |
| 9 | 1.040 (26.42) | M12x1.0-6g-0.100R | .980 (24.89) | .5625-.067P-.2L-TS-2A | .100 (2.54) | M16x1.0-6g-0.100R | .406 (10.31) |
| 10 | 1.110 (28.19) | M14x1.0-6g-0.100R | 1.050 (26.67) | .6250-.067P-.2L-TS-2A | .100 (2.54) | M18x1.0-6g-0.100R | .484 (12.29) |
| 11 | 1.160 (29.46) | M15x1.0-6g-0.100R | 1.110 (28.19) | .6875-.067P-.2L-TS-2A | .100 (2.54) | M19x1.0-6g-0.100R | .524 (13.31) |
| 12 | 1.230 (31.24) | M17x1.0-6g-0.100R | 1.170 (29.72) | .7500-.067P-.2L-TS-2A | .100 (2.54) | M21x1.0-6g-0.100R | .603 (15.32) |
| 14 | 1.360 (34.54) | M19x1.0-6g-0.100R | 1.320 (33.53) | .8750-.067P-.2L-TS-2A | .100 (2.54) | M24x1.0-6g-0.100R | .681 (17.30) |
| 16 | 1.515 (38.48) | M22x1.0-6g-0.100R | 1.444 (36.68) | 1.0000-.067P-.2L-TS-2A | .100 (2.54) | M27x1.0-6g-0.100R | .782 (19.86) |
| 18 | 1.610 (40.89) | M25x1.0-6g-0.100R | 1.570 (39.88) | 1.1250-.067P-.2L-TS-2A | .100 (2.54) | M30x1.0-6g-0.100R | .899 (22.83) |
| 20 | 1.850 (46.99) | M28x1.0-6g-0.100R | 1.760 (44.70) | 1.2500-.067P-.2L-TS-2A | .128 (3.25) | M34x1.0-6g-0.100R | 1.043 (26.49) |
| 22 | 2.010 (51.05) | M31x1.0-6g-0.100R | 1.913 (48.59) | 1.3750-.067P-.2L-TS-2A | .128 (3.25) | M37x1.0-6g-0.100R | 1.155 (29.34) |
| 24 | 2.195 (55.75) | M34x1.0-6g-0.100R | 2.070 (52.58) | 1.5000-.067P-.2L-TS-2A | .128 (3.25) | M41x1.0-6g-0.100R | 1.273 (32.33) |

Jam-Nut Cutout




**806-020 Jam-nut D-Hole Dimensions**

| Shell Size | øA +.005/-.00 (+0.13/-.00) | B +.005/-.00 (+0.13/-.00) |
|---|---|---|
| 7 | .522 (13.26) | .224 (5.69) |
| 8 | .601 (15.27) | .256 (6.50) |
| 9 | .640 (16.26) | .287 (7.29) |
| 10 | .719 (18.26) | .318 (8.08) |
| 11 | .759 (19.28) | .350 (8.89) |
| 12 | .837 (21.26) | .381 (9.68) |
| 14 | .955 (24.26) | .443 (11.25) |
| 16 | 1.073 (27.25) | .505 (12.83) |
| 18 | 1.192 (30.28) | .568 (14.43) |
| 20 | 1.349 (34.26) | .630 (16.00) |
| 22 | 1.467 (37.26) | .693 (17.60) |
| 24 | 1.624 (41.25) | .755 (19.18) |

**NOTES:**

1. Boot groove for use with 809-060 shrink boots
2. Terminate shield with Glenair Band-Master ATS tool 601-108 and Glenair Nanoband
3. High temperature crown ring pin and socket contacts required to meet higher operating temps



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