



SERIES BNT TRIAxIAL MINIATURE CONNECTORS

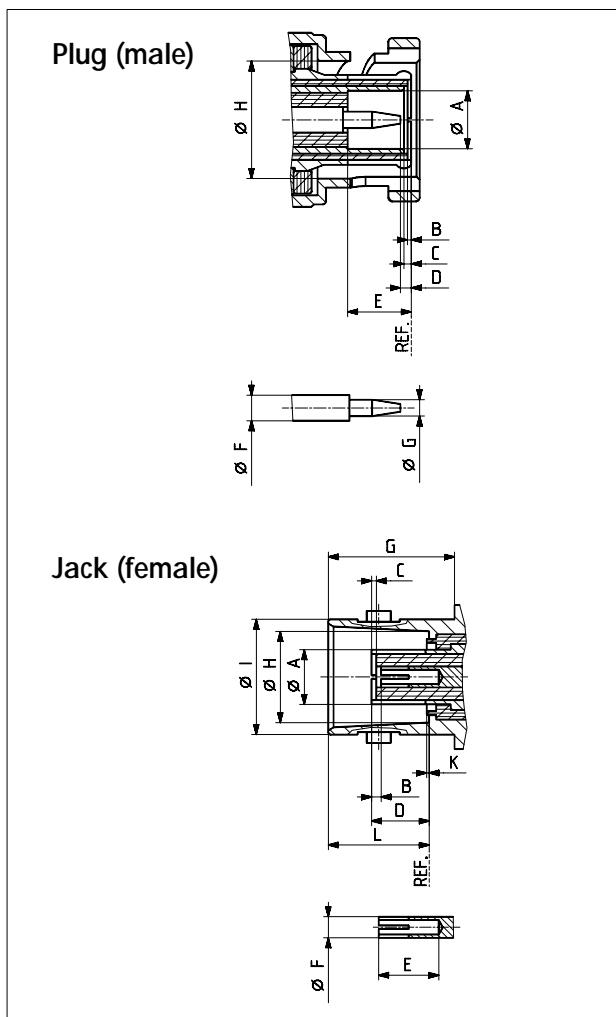
Description

SUHNER BNT triaxial connectors are RF connectors with a bayonet coupling mechanism and three concentric contacts (inner conductor, inner screen and outer screen) for triaxial cables.

SUHNER BNT connectors are intermateable with BNC connectors, but the inner conductor and outer screen are connected only.

BNT connectors are suitable for applications up to 3 GHz.

Interface Dimensions



Interface Dimensions in mm / inches

| | Plug | | Jack | |
|---|----------------|-----------|----------------|------------|
| | min. | max. | min. | max. |
| A | 4.85/.191 | 4.90/.193 | 4.95/.195* | 5.05/.199* |
| B | 0.00/.000 | 0.40/.016 | 0.10/.004 | --- |
| C | 0.50/.020 nom. | | 0.20/.008 nom | |
| D | 0.60/.024 nom. | | 4.90/.193 nom. | |
| E | 5.30/.209 | --- | 5.00/.197 | --- |
| F | 1.43/.056 | 1.47/.058 | 1.70/.067 | 1.75/.069 |
| G | 1.32/.052 | 1.37/.054 | 10.52/.414 | --- |
| H | 9.78/.385 | 9.91/.390 | 8.10/.319 | 8.15/.321 |
| I | --- | --- | 9.60/.378 | 9.70/.382 |
| K | --- | --- | 0.20/.008 nom. | |
| L | --- | --- | 8.31/.327 | 8.51/.335 |

* prior to slotting

Technical Data

| ELECTRICAL DATA | REQUIREMENTS |
|--|---|
| Impedance | 50 Ω (between centre contact and first outer contact) |
| Frequency range | DC ... 3 GHz |
| Dielectric withstanding voltage (at sea level) - centre contact/inner screen - between screens | 1 kV rms, 50 Hz 400 V rms, 50 Hz |
| Insulation resistance - centre contact/inner screen - between screens | $\geq 5 \cdot 10^3$ M Ω $\geq 5 \cdot 10^2$ M Ω |
| Contact resistance - centre contact - inner screen - outer screen | ≤ 1.5 m Ω ≤ 1 m Ω ≤ 1.5 m Ω |

| MECHANICAL DATA | REQUIREMENTS |
|------------------------------|--|
| Coupling nut torque | 7 Ncm ... 28 Ncm / 0.6 in. lbs ... 2.5 in. lbs |
| Coupling nut retention force | ≥ 450 N / 101.2 lbs |
| Contact captivation | ≥ 27 N / 6.1 lbs |
| Durability (matings) | ≥ 500 |

| ENVIRONMENTAL DATA | TEST CONDITIONS |
|---------------------|---|
| Temperature range | - 50°C ... + 125°C / - 58°F ... + 257°F |
| Climatic category | IEC → 50/125/21 |
| Thermal shock | MIL-STD-202, Method 107, Condition B |
| Moisture resistance | MIL-STD-202, Method 106 |
| Corrosion | Saltspray test acc. to MIL-STD-202, Method 101, Condition B |
| Vibration | MIL-STD-202, Method 204, Condition B |
| Shock | MIL-STD-202, Method 213, Condition G |

| MATERIAL DATA | | | |
|---|-----------------------|----------------------------|------------------------------|
| CONNECTOR PART | STANDARDS | MATERIAL | PLATING |
| Bodies Pin contact 1. outer contact | QQ-B-626 | brass | SUCOPLATE® gold silver |
| Socket contact | QQ-C-530 | beryllium-copper, hardened | gold |
| Crimp ferrules | SUHNER® specification | copper | SUCOPLATE® |
| Insulators | | PTFE or PFA | |
| Gaskets | | silicone rubber | |

Some connectors may have a specification that differs from the above mentioned data.