



All dimensions are in mm; tolerances according to ISO 2768 m-H

**Interface**

According to 4.3-10 side: IEC 61169-54  
N side: IEC 61169-16, MIL-PRF-39012, CECC 22210

**Documents**

N/A

**Material and plating**

**Connector parts**

Center contact  
Outer contact  
Body  
Dielectric  
Gasket

**Material**

CuBe  
Brass  
Brass  
PTFE  
Silicone

**Plating**

Silver, 3-6 μm  
Flash white bronze over silver(e.g. Optargen®)  
Flash white bronze over silver(e.g. Optargen®)

N 50 Ω

Adaptor  
N Jack – 4.3-10 Plug

**53K164-S00N1**

**Electrical data**

Impedance 50 Ω  
 Frequency DC to 12 GHz  
 Return loss ≥ 36 dB @ DC to 1 GHz  
 ≥ 30 dB @ 1 GHz to 4 GHz  
 ≥ 25 dB @ 4 GHz to 6 GHz  
 Insertion loss ≤ 0.03 x √ f [GHz] dB  
 Insulation resistance ≥ 5 GΩ  
 Center contact resistance ≤ 1.0 mΩ, 4.3-10 side ≤ 1.0 mΩ, N side  
 Outer contact resistance ≤ 1.0 mΩ, 4.3-10 side ≤ 0.25 mΩ, N side  
 Test voltage 2500 V rms  
 Working voltage 500 V rms  
 RF-leakage ≥ 128 dB @ DC to 1 GHz  
 Power handling (at 20 °C, sea level, VSWR 1.0) 1000 W @ 1 GHz  
 700 W @ 2 GHz  
 Intermodulation (3<sup>rd</sup> order) ≥ 155 dBc (2 x 43 dBm)

**Mechanical data**

|                                   |              |               |
|-----------------------------------|--------------|---------------|
|                                   | 4.3-10 side  | N side        |
| Mating cycles                     | ≥ 100        | min. 500      |
| Center contact captivation: axial | ≥ 30 N       | ≥ 28 N        |
| radial                            | > 5 Ncm      | ≥ 3 Ncm       |
| Center contact retention force    | 1.5 N – 20 N |               |
| Recommended torque                | 5 Nm         | 0.7 to 1.1 Nm |

**Environmental data**

Temperature range -55 °C to +90 °C operating temperature  
 Thermal shock IEC 60169-1, Sub-clause 16.4  
 Corrosion resistance ISO 21207 method B  
 Vibration IEC 61169-1 9.3.3 and IEC 60068-2-64  
 Shock IEC 61169-1 9.3.14  
 Degree of protection (mated pair) IEC 60529, IP68 1h / 25m  
 RoHS compliant

**Tooling**

N/A

**Suitable cables**

N/A

**Weight**

Weight 57 g/pce

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

For the installation of the electrotechnical equipment, particular electrotechnical expertise is required.



|               |          |             |          |      |                           |                |          |
|---------------|----------|-------------|----------|------|---------------------------|----------------|----------|
| Draft         | Date     | Approved    | Date     | Rev. | Engineering change number | Name           | Date     |
| F. Fraunhofer | 04.02.13 | Chr. Janßen | 22.12.20 | e00  | 20-1927                   | S. Huber-Siegl | 22.12.20 |

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