



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 (3rd order) ≥ 168 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	F. Fraunhofer	07.03.22	f00	22-0461	S. Huber-Siegl	07.03.22

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