



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

**Interface**

According to IEC 61169-16, MIL-PRF-39012, CECC 22210

**Documents**

N/A

**Material and plating**

**Connector parts**

- Center contact
- Outer contact
- Body
- Dielectric
- Gasket

**Material**

- Brass
- Brass
- Brass
- PTFE
- Silicone

**Plating**

- AuroDur®, gold plated
- Flash white bronze over silver(e.g. Optargen®)
- Flash white bronze over silver(e.g. Optargen®)

# Technical Data Sheet

# Rosenberger

N 50 Ω

Adaptor  
N 50 Ω Plug – Plug

**53S101-S00N5**

## Electrical data

Impedance	50 Ω
Frequency	DC to 11 GHz
Return loss	≥ 30 dB, DC to 4 GHz ≥ 25 dB, 4 to 9 GHz
Insertion loss	≤ 0.1 x $\sqrt{f}$ [GHz] dB
Insulation resistance	≥ 5 x 10 <sup>3</sup> MΩ
Center contact resistance	≤ 1 mΩ
Outer contact resistance	≤ 0.25 mΩ
Working voltage	500 V rms
Power handling (at 20 °C, sea level, VSWR 1.0)	1000 W @ 1 GHz 700 W @ 2 GHz
RF-leakage	≥ 128 dB up to 1 GHz
Intermodulation (3 <sup>rd</sup> order)	≤ -115 dBm @ 2 x 20 W

## Mechanical data

Mating cycles	min. 500
Coupling nut retention	≥ 450 N
Center contact captivation: axial	≥ 28 N
Coupling test torque	max. 1.7 Nm
Recommended torque	0.7 Nm to 1.1 Nm

## Environmental data

Temperature range	-55°C to +155°C
Thermal shock	MIL-STD-202, Meth. 107, Cond. B
Corrosion	MIL-STD-202, Meth. 101, Cond. B
Vibration	MIL-STD-202, Meth. 204, Cond. B
Shock	MIL-STD-202, Meth. 213, Cond. I
Moisture resistance	MIL-STD-202, Meth. 106
Degree of protection (mated pair)	IEC 60529, IP67
RoHS	compliant

## Tooling

N/A

## Suitable cables

N/A

## Weight

Weight 62.4 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
Inge Mühlauer	08.06.04	Chr. Janßen	26.01.21	i00	20-1927	S. Huber-Siegl	26.01.21

  

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