



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

**Interface**

According to IEC 60169-16, MIL-PRF-39012, CECC 22210

**Documents**

Assembly instruction 53 T

**Material and plating**

**Connector parts**

Center contact  
Outer contact  
Body  
Dielectric  
Gasket

**Material**

Brass  
Brass  
Brass  
PTFE  
Silicone

**Plating**

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

N 50  $\Omega$  STRAIGHT PLUG

53S101-272N5

**Electrical data**

Impedance	50 $\Omega$
Frequency	DC to 11 GHz
Return loss	$\geq 35$ dB, DC to 2 GHz $\geq 30$ dB, 2 to 5 GHz $\geq 25$ dB, 5 to 11 GHz
Insertion loss	$\leq 0.05$ dB
Insulation resistance	$\geq 5 \times 10^3$ M $\Omega$
Center contact resistance	$\leq 1$ m $\Omega$
Outer contact resistance	$\leq 0.25$ m $\Omega$
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	$\geq 128$ dB up to 1 GHz
Intermodulation (3 <sup>rd</sup> order)	$\leq -117$ dBm @ 2 x 20 W

- Limitations are possible due to the used cable type -

**Mechanical data**

Mating cycles	min. 500
Coupling nut retention	$\geq 450$ 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
RoHS	compliant

**Tooling**

N/A

**Suitable cables**

RG 402/U, UT 141 A, Flexiform 402

**Weight**

Weight 28.3 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.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Inge Mühlauer	08/06/04	J_Gramsamer	17.04.15	f00	15-0397	J_Krautenb.	17.04.15
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany <a href="http://www.rosenberger.de">www.rosenberger.de</a>					Tel.: +49 8684 18-0 email: <a href="mailto:info@rosenberger.de">info@rosenberger.de</a>		Page 2 / 2