



SERIES N 50 Ω COAXIAL CONNECTORS

Description

SUHNER N connectors are available with 50 Ω and 75 Ω impedance. The frequency range extends to 18 GHz, depending on the connector and cable type. The screw-type coupling mechanism provides a sturdy and reliable connection.

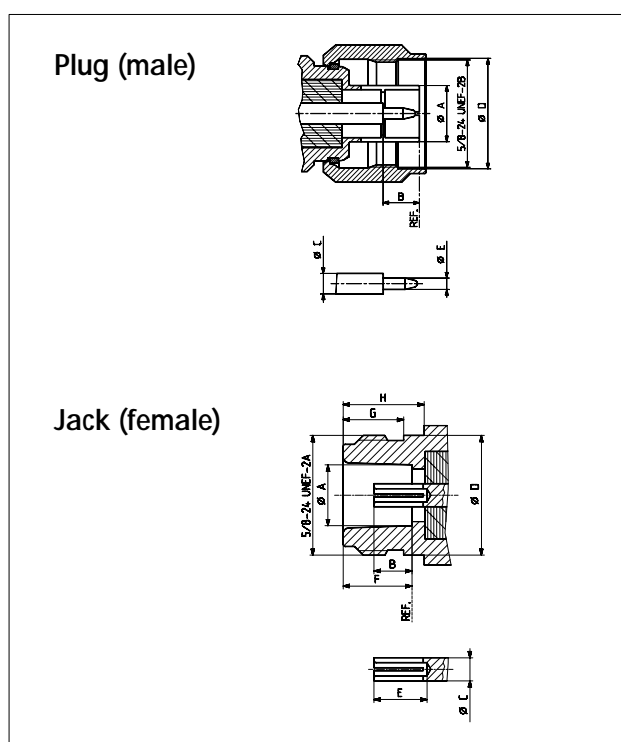
SUHNER N connectors are available for flexible cables, for semi-rigid cables and for corrugated copper tube cables.

Cable entries: clamp, crimp and solder types available, as well as SUHNER QUICK-FIT for corrugated copper tube cables.

Compatibility

Inner conductors of N 75 Ω connectors have a smaller diameter than those of the 50 Ω version. Therefore 50 Ω and 75 Ω connectors must not be mated with each other.

Interface Dimensions



Interface Dimensions in mm / inches

	Plug		Jack	
	min.	max.	min.	max.
A	---	8.38/.330	8.03/.316	8.13/.320
B	5.33/.210	5.84/.230	4.75/.187	5.26/.207
C	---	3.15/.124	---	3.15/.124
D	16.00/.630	---	---	15.93/.627
E	1.60/.063	1.68/.066	5.33/.210	---
F	---	---	9.04/.356	9.19/.362
G	---	---	6.76/.266	---
H	---	---	10.72/.422	---

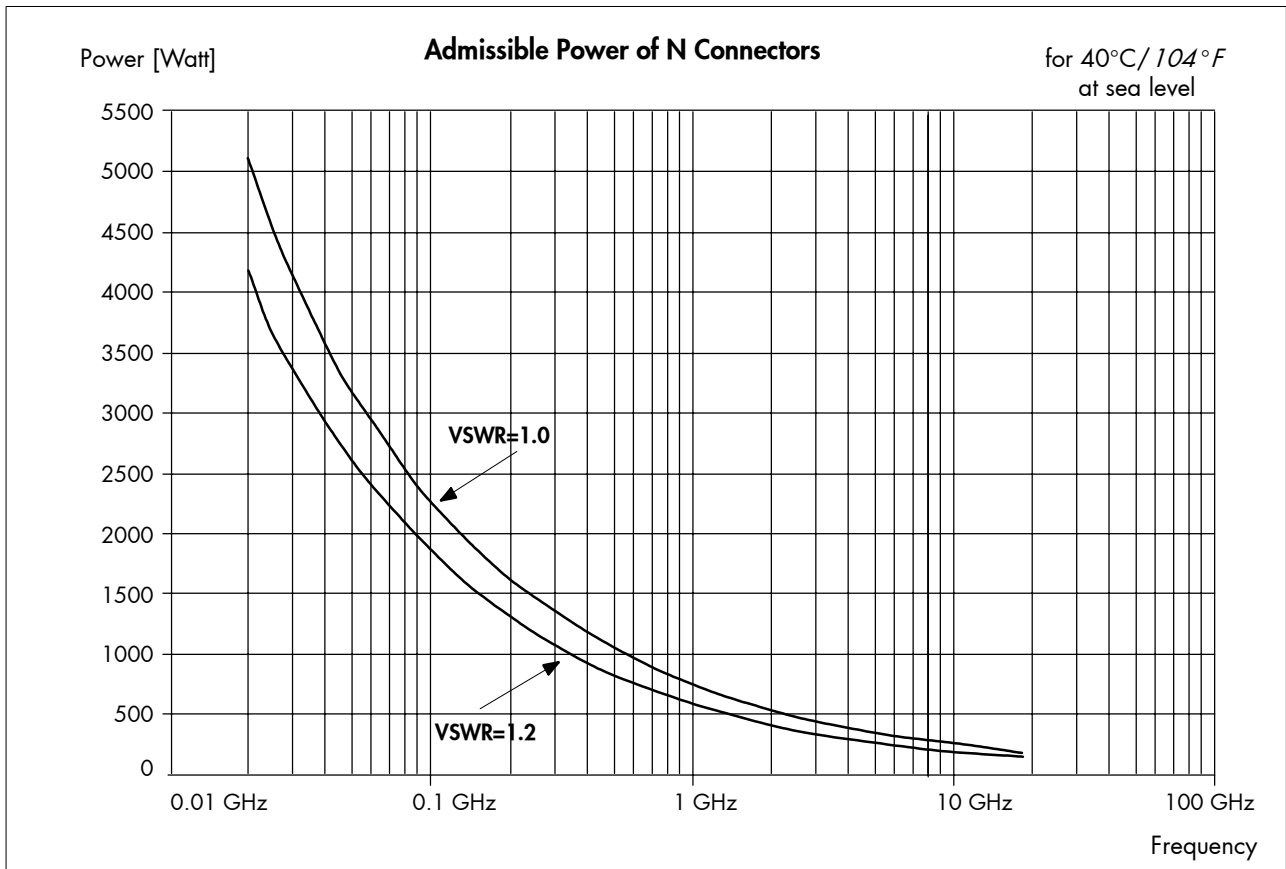
Interface dimensions conformable to the Standards:

International: IEC 169-16,
Europe: CECC 22 210
USA: MIL-STD-348A/304

Technical Data

ELECTRICAL DATA	REQUIREMENTS
Impedance	50 Ω
Frequency range - flexible cables - semi-rigid cables	DC ... 11 GHz DC ... 18 GHz
VSWR	see table below
RF-leakage (between 2 ÷ 3 GHz)	≥ 90 dB
Dielectric withstanding voltage (at sea level)	2.5 kV rms, 50 Hz
Working voltage (at sea level)	≤ 1.0 kV rms, 50 Hz
Insulation resistance	$\geq 5 \cdot 10^3$ M Ω
Contact resistance - centre contact - outer contact	≤ 1.0 m Ω ≤ 1.0 m Ω

TYPICAL VSWR	FREQUENCY RANGE					CABLE GROUP
	1 GHz	2.5 GHz	5 GHz	12.4 GHz	18 GHz	
straight connectors	1.04	1.05	1.08			M6
	1.03	1.04	1.06	1.12		Y5, Y12
	1.03	1.04	1.05	1.07	1.09	Y5, Y12
	1.03	1.04	1.05	1.08	1.12	Y7
	1.05	1.09	1.17			U7, U9
	1.04	1.06	1.12			U28, U29, U32, U33
	1.03	1.05	1.14			S24
	1.03	1.05	1.10			S39
	right angle connectors	1.04	1.05	1.08		
1.04		1.05	1.06	1.12		Y5, Y12
1.05		1.10	1.20			U7, U9
1.08		1.10	1.12			U28, U29, U32, U33



MECHANICAL DATA	REQUIREMENTS												
Coupling nut torque - recommended - proof torque	0.68 Nm ... 1.13 Nm / 6.0 ... 10.0 in. lbs 1.70 Nm / 15.0 in. lbs												
- recommended torque for connectors with profile HEX19 (HEX18) coupling nut	<table border="1"> <thead> <tr> <th>Matings</th> <th>500</th> <th>250</th> <th>100</th> <th>60</th> <th>30</th> </tr> </thead> <tbody> <tr> <td>Torque</td> <td>1 Nm</td> <td>2 Nm</td> <td>3 Nm</td> <td>4 Nm</td> <td>5 Nm</td> </tr> </tbody> </table>	Matings	500	250	100	60	30	Torque	1 Nm	2 Nm	3 Nm	4 Nm	5 Nm
Matings	500	250	100	60	30								
Torque	1 Nm	2 Nm	3 Nm	4 Nm	5 Nm								
Coupling nut retention force	≥ 450 N / 101.2 lbs												
Contact captivation	≥ 28 N / 6.3 lbs												
Durability (matings)	≥ 500												

ENVIRONMENTAL DATA	TEST CONDITIONS
Temperature range	- 65°C ... + 165°C / - 85°F ... + 329°F
Climatic category	IEC → 55 / 155 / 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 I

MATERIAL DATA

CONNECTOR PART	STANDARDS	MATERIAL	PLATING
Bodies Pin contact	QQ-B-626	brass	SUCOPLATE® gold
Outer contact, slotted	DIN 17660	spring bronze	SUCOPLATE®
Female contacts	QQ-C-530	beryllium-copper, hardened	gold
Crimp ferrules	SUHNER® specification	copper	SUCOPLATE®
Insulators, standard version		PTFE or PFA	
Gaskets		silicone rubber	

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