SERIES TNC 50 Ω
COAXIAL MINIATURE CONNECTORS

Description

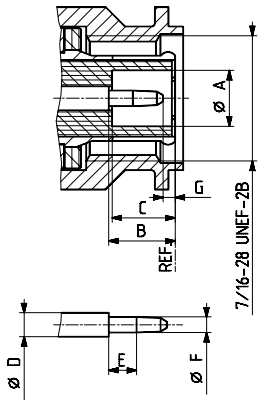
SUHNER TNC connectors are threaded RF connectors applicable from DC up to 11 GHz. Precision designs using a dielectric bead are suitable for use up to 18 GHz. The threaded coupling mechanism improves control over the interface dimensions and allows them to be used under a higher environmental load than BNC, especially under a high vibration load.

Compatibility

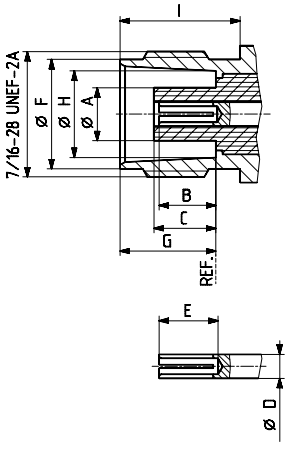
75 Ω TNC connectors and 50 Ω TNC connectors are intermateable without restrictions.

Interface Dimensions

Plug (male)



Jack (female)



Interface Dimensions in mm / *inches*

	Plug		Jack	
	min.	max.	min.	max.
A	4.83/*.190*	---	---	4.72/*.186*
B	5.33/*.210*	5.84/*.230*	4.72/*.186*	5.23/*.206*
C	5.28/*.208*	5.79/*.228*	4.78/*.188*	5.28/*.208*
D	2.06/*.081*	2.21/*.087*	2.06/*.081*	2.21/*.087*
E	1.98/*.078*	---	4.95/*.195*	---
F	1.32/*.052*	1.37/*.054*	9.60/*.378*	9.70/*.382*
G	0.08/*.003*	---	8.31/*.327*	8.51/*.335*
H	---	---	8.10/*.319*	8.15/*.321*
I	---	---	10.52/*.414*	---

Interface dimensions conformable to the Standards:

International: **IEC 169-17**
Europe: **CECC 22 200**
USA: **MIL-C-39012**
TNC-Interface MIL-STD-348A/313

Technical Data

ELECTRICAL DATA	REQUIREMENTS
Impedance	50 Ω
Frequency range	DC ... 11 GHz
RF-leakage (between 2 ÷ 3 GHz)	≥ 60 dB
Dielectric withstanding voltage (at sea level)	1.5 kV rms, 50 Hz (depending on cable)
Working voltage (at sea level) - unmated	 ≤ 500 V rms, 50 Hz (depending on cable)
Insulation resistance	≥ $5 \cdot 10^3$ MΩ
Contact resistance - centre contact - outer contact	 ≤ 1.5 mΩ ≤ 1 mΩ

MECHANICAL DATA	REQUIREMENTS
Coupling nut torque - recommended - proof torque	 46 Ncm ... 69 Ncm / *4.1 in. lbs ... 6.1 in. lbs* 170 Ncm / *15.0 in. lbs*
Coupling nut retention force	≥ 450 N / *101.2 lbs*
Contact captivation	≥ 27 N / *6.1 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 G

MATERIAL DATA			
CONNECTOR PART	**STANDARDS**	**MATERIAL**	**PLATING**
Bodies Pin contact	QQ-B-626	brass	SUCOPLATE® gold
Socket contact	QQ-C-530	beryllium-copper, hardened copper alloy	gold
Crimp ferrules	SUHNER® specification QQ-B-626	copper brass	SUCOPLATE®
Insulators, standard version		PTFE or PFA	
Gaskets		silicone rubber	

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