



SERIES TNC 75 Ω, COAXIAL MINIATURE CONNECTORS

DESCRIPTION

Within the internationally standardized TNC mating face dimensions a perfect 75 Ω characteristic impedance cannot be realized. However, at frequencies up to 1 GHz the small impedance deviation is negligible for practical applications. A typical VSWR of 1.15 at 1 GHz is achieved. The threaded coupling mechanism allows them to be used under higher environmental load than BNC.

Compatibility

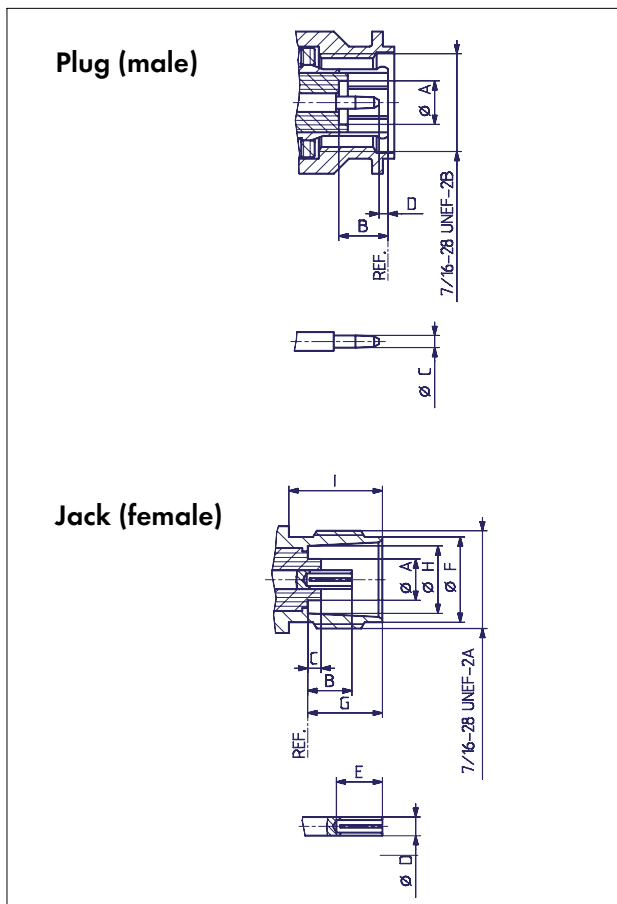
75 Ω TNC connectors and 50 Ω TNC connectors are intermateable without restrictions.

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INTERFACE DIMENSIONS



INTERFACE DIMENSIONS (MM / INCHES)

	Plug		Jack	
	min.	max.	min.	max.
A	4.83/.190	4.97/.196	—	4.72/.186
B	5.28/.208	5.79/.228	4.72/.186	5.23/.206
C	1.32/.052	1.37/.054	1.50 / .059 nom.	
D	0.08/.003	1.02/.040	2.10 / .827 nom.	
E	—	—	4.95/.195	—
F	—	—	9.60/.378	9.70/.382
G	—	—	8.35/.328	8.48/.334
H	—	—	8.10/.319	8.15/.321
I	—	—	10.60/.417	—

Interface dimensions conformable to the Standards:

(based on IEC 60169-17 and IEC 60169-8, Annex A)

IP rating (interface, mated) IP68

TNC 75

TECHNICAL DATA

ELECTRICAL DATA	REQUIREMENTS
Impedance	75 Ω
Frequency range	DC ... 1 GHz
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	$\geq 5 \cdot 10^3 \text{ M}\Omega$
Contact resistance - centre contact - outer contact	$\leq 1.5 \text{ m}\Omega$ $\leq 1 \text{ m}\Omega$
RF-leakage (measured at 1 GHz)	$\geq 60 \text{ dB}$

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	$\geq 450 \text{ N} / 101.2 \text{ lbs}$
Contact captivation	$\geq 27 \text{ N} / 6.1 \text{ lbs}$
Cable retention force ¹⁾	see pages 28 - 34
Durability (matings)	≥ 500

1) Value considers maximum load of the cables without irreversible variations of specifications.

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	MATERIAL	PLATING
Bodies	brass	SUCOPLATE®
Pin contacts	brass	gold / SUCOPRO
Socket contacts	copper-beryllium alloy copper alloy	gold / SUCOPRO
Crimp ferrules	copper brass	SUCOPLATE®
Insulators, standard version	PTFE or PFA	
Gaskets	silicone rubber	

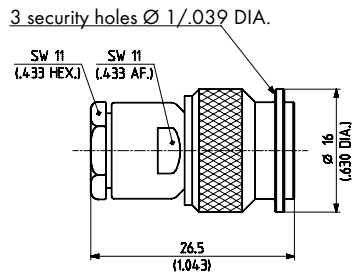
Some connectors may have a specification that differs from the above mentioned data.

The products are designed and guaranteed to pass the above mentioned test procedures. Any additional or different requirement arising from specific applications or environmental conditions which is not covered by these test procedures is subject to request.

CABLE CONNECTORS

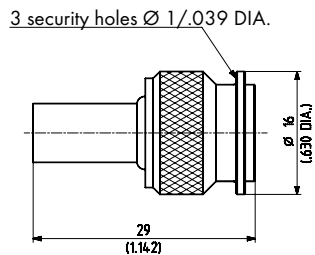
Straight cable plugs (male)

- > for flexible cables
- > cable entry clamp
- > centre contact soldered



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Notes
11_TNC-75-4-2/133_NE	22543477	U15 (RG 59 B/U)	single	3005	

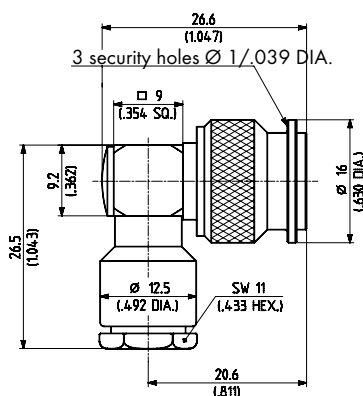
- > for flexible cables
- > HUBER+SUHNER® full crimp
- > taper sleeves see page 406



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Crimp insert
11_TNC-75-4-4/133_NE	22543478	U16 (RG 59 B/U)	single	3015	2 C
11_TNC-75-4-9/133_NE	22642678	U18 (G 04233 D)	single	3015	2 C
11_TNC-75-4-30/133_NE	22642503	U17 (S 04233)	single	3015	2 C

Right angle cable plugs (male)

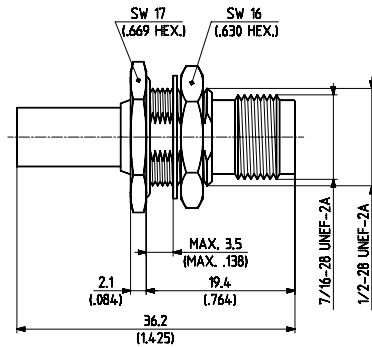
- > for flexible cables
- > cable entry clamp
- > centre contact soldered



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction	Notes
16_TNC-75-4-2/133_NE	22641402	U15 (RG 59 B/U)	single	3024	

Straight bulkhead cable jacks (female)

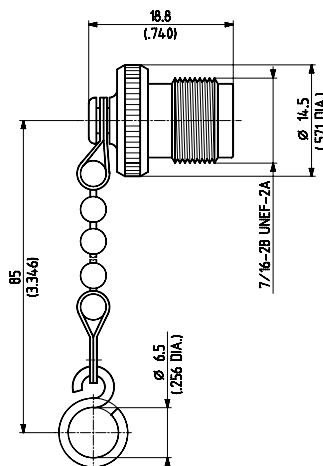
- > for flexible cables
- > HUBER+SUHNER® full crimp
- > with panel seal
- > taper sleeves see page 406
- > insulating washers see page 408



HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction/ Mounting hole	Crimp insert
24_TNC-75-4-8/133_NE	22544140	U16 (RG 59 B/U)	single	3015 / ML 4	2 C

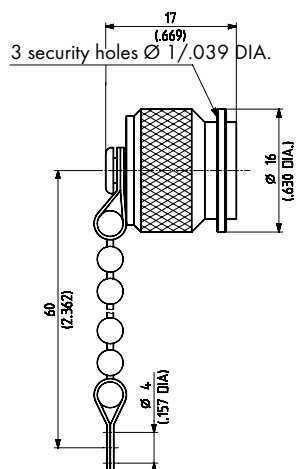
PROTECTIVE CAPS

- > protective cap for plugs



HUBER+SUHNER type	Item no.	Packaging	Notes
61_TNC-0-0-1/-33_E	22640661	single	with chain

- > protective cap for jacks



HUBER+SUHNER type	Item no.	Packaging	Notes
62_TNC-0-0-1/-33_E	22640665	single	with chain