

# Series TNC 75 Ω – coaxial miniature connectors

## Description

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

## Content

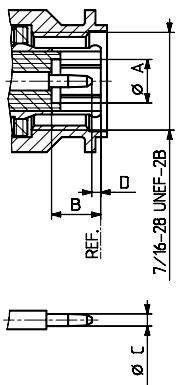
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## Compatibility

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

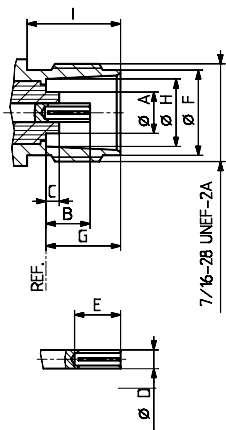
## Interface dimensions (mm/inches)

### Plug (male)



	Plug		Jack	
	min.	max.	min.	max.
A	4.83/0.190	4.97/0.196	-	4.72/0.186
B	5.28/0.208	5.79/0.228	4.72/0.186	5.23/0.206
C	1.32/0.052	1.37/0.054	1.50 /0.059 nom.	
D	0.08/0.003	1.02/0.040	2.10/0.827 nom.	
E	-	-	4.95/0.195	-
F	-	-	9.60/0.378	9.70/0.382
G	-	-	8.35/0.328	8.48/0.334
H	-	-	8.10/0.319	8.15/0.321
I	-	-	10.60/0.417	-

### Jack (female)



Interface dimensions conformable to the standards:

Based on IEC 60169-17 and IEC 60169-8, annex A

# Series TNC 75 Ω - technical data

Electrical data	Requirements
Impedance	75 Ω
Frequency range	DC to 1 GHz
Dielectric withstanding voltage (at sea level)	1.5 kV rms, 50 Hz (depending on cable)
Working voltage (at sea level) <ul style="list-style-type: none"> <li>• Unmated</li> </ul>	500 V rms, 50 Hz (depending on cable)
Insulation resistance	≥ 5 · 10 <sup>3</sup> MΩ
Contact resistance <ul style="list-style-type: none"> <li>• Centre contact</li> <li>• Outer contact</li> </ul>	≤ 1.5 mΩ ≤ 1 mΩ
RF leakage (measured at 1 GHz)	≥ 60 dB

Mechanical data	Requirements
Coupling nut torque <ul style="list-style-type: none"> <li>• Recommended</li> </ul>	46 to 69 Ncm/4.1 to 6.1 in lbs
Coupling nut retention force	≥ 450 N/101.2 lbs
Contact captivation	≥ 27 N/6.1 lbs
Cable retention force <sup>1)</sup>	see pages 32 - 37
Durability (matings)	≥ 500

Environmental data	Requirements
Temperature range	-65 to +165 °C/-85 to +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 parts	Material	Plating
Bodies	brass	SUCOPLATE®
Pin contacts	brass	gold/SUCOPRO® gold plating
Socket contacts	copper(-beryllium) alloy copper alloy	gold/SUCOPRO® gold plating
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.

<sup>1)</sup> Value considers maximum load of the cables without irreversible variations of specifications.

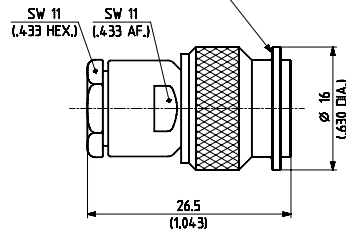
# Series TNC 75 Ω – cable connectors

## Straight cable plugs (male)

For flexible cables

- Cable entry clamp
- Centre contact soldered

3 security holes Ø 1/039 DIA.

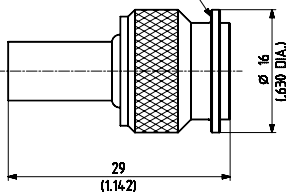


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
11_TNC-75-4-2/133_NE	22543477	U16 (RG_59_B/U)	single	3005

For flexible cables

- HUBER+SUHNER full crimp
- Taper sleeves see page 526

3 security holes Ø 1/039 DIA.



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-75-4-30/133_NE	22642503	U17 (S_04263)			

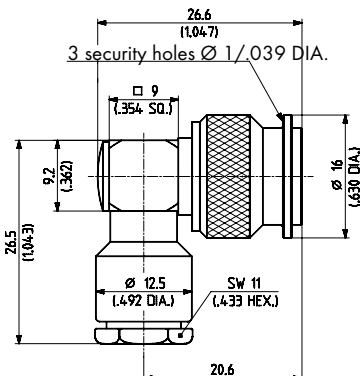
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# Series TNC 75 Ω - cable connectors

## Right angle cable plugs (male)

For flexible cables

- Cable entry clamp
- Centre contact soldered

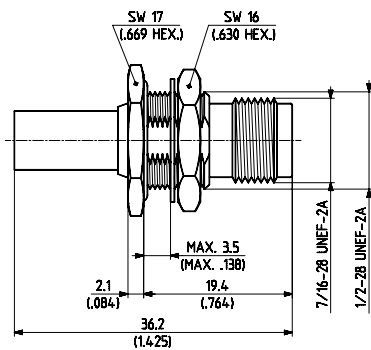


HUBER+SUHNER type	Item no.	Cable group (example)	Packaging	Assembly instruction
16_TNC-75-4-2/133_NE	22641402	U16 (RG_59_B/U)	single	3024

## Straight bulkhead cable jacks (female)

For flexible cables

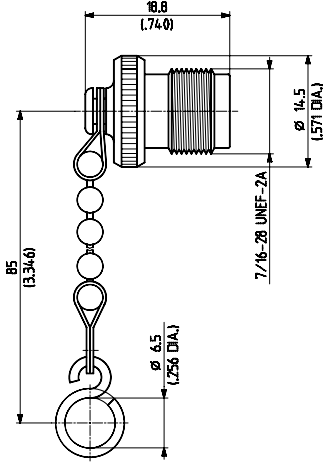
- HUBER+SUHNER full crimp
- With panel seal
- Taper sleeves see page 526
- Insulating washers see page 528



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	ML4	2 C

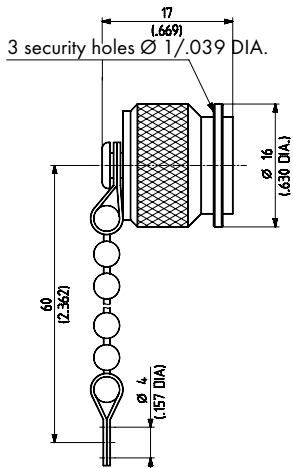
# Series TNC 75 Ω – protective caps

## 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

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