PRODUCT CATALOG

HIROSE ELECTRIC CO.,LTD.

TNC Series

Small Size Screw Coupling Type Connector for Wireless Equipment

RF

Compact

Robust



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Product Page
https://www.hirose.com/en/product/series/TNC

Jun. 2023

Features

1. 50Ω Impedance Matching Type, Coaxial Connector

This TNC series is ideal for antenna connection of wireless devices.
It is a medium-sized screw coupling coaxial connector with the same mating part diameter as the BNC series.
The center contact is fixed, making it robust and reliable.

2. Variation

We have TNC(R), a reverse type in which the male and female of the center contact is reversed, and conversion adapter with U.FL etc.

3. Compliant Standards

IEC 60169-17

4. RoHS2 Compliant

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Product Specifications

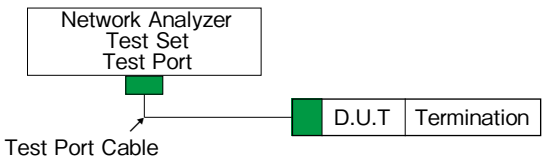
Nominal Characteristic Impedance	50Ω	Operating Temperature	-30 to +85℃
Rated Voltage	150V AC	Operating Relative Humidity	85% Max.
Rated Frequency (Note)	0 to 6GHz		

Note : May vary by product.

Items	Specifications	Conditions
Contact Resistance	3mΩ Max.	Measured at 100mA Max.
Insulation Resistance	1000MΩ Min.	Measured at 500V DC
Withstanding Voltage	No insulation breakdown	1000V AC for 1 min.
V.S.W.R.*	1.3 Max.	6GHz
Mating Durability	Contact Resistance 10mΩ Max.	500 times
Vibration Resistance	No electrical discontinuity of 1μs or more No damage, cracks or part dislocation.	Frequency : 10 to 500Hz, single amplitude of 0.75mm, Acceleration of 98m/s^2, 2 hours in the direction of each of the 3 axis
Shock Resistance	No electrical discontinuity of 1μs or more No damage, cracks or part dislocation.	Acceleration of 490m/s^2, 11ms duration Sine halfwave : 3 times each in 3 axial both directions
Humidity Resistance	Insulation Resistance 100MΩ Min. (in a high humidity environment) Insulation Resistance1000MΩ Min. (in a dry environment) No damage, cracks or part dislocation.	Temperature : +25℃ to +65℃ , Humidity : 90 to 96%, Left for 10 cycles (240 hours)
Thermal Shock	No damage, cracks or part dislocation.	(-55℃ : 30 min. → +5 ~ +35℃ : 5 min. → +85℃ : 30 min. → +5 ~ +35℃ : 5 min.) 5 cycles
Corrosion Resistance	No corrosion that impairs function.	Continuous 48 hour cycle in 5% salt water solution

Note : Ratings and standards may vary by products.

*The V.S.W.R. (Voltage Standing Wave Ratio) specification values were measured using the measurement system shown below.



Note : The cable connector is measured with the connector attached to the applicable cable.

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Materials / Finish

Part	Material	Finish	Remarks
Shell	Brass	Nickel Plating	–
Male Contact	Brass	Silver or Gold Plating	–
Female Contact	Beryllium Copper or Phosphorous Bronze	Silver or Gold Plating	–
Insulator	PBT	–	UL94V-0
	PTFE	–	Noncombustible

【About Silver Plating Discoloration】
The discoloration is only on the surface and the contact area is wiped so there is no problem with electrical contact.

Product Number Structure

Refer to the chart below when determining the product specifications from the product number.
Please select from the product numbers listed in this catalog when placing orders.

TNC - **[ ]** - **1.5CR** - **[ ]**
① ② ③ ④

① Series Name	TNC	③ Applicable Cable	1.5CR : Single Shield Cable
② Connector Type	P : Straight Plug PJ : Panel Jack	④ Sequel	

Functional Diagram

Plug Side

■ Straight Plug
TNC-P-##



Jack Side

■ Straight Panel Jack
TNC-BPJ-##



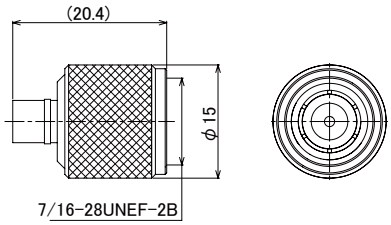
■ Conversion Adapter
● Mated with SMA Plug
HRMJ-TNCJ-PA(40)



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Straight Plug

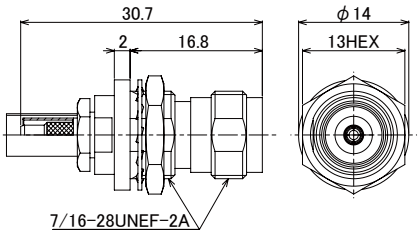




Part No.	HRS No.	Applicable Cable	Purchase Unit
TNC-P-1.5CR-1(40)	CL0313-0400-0-40	1.5D-2V	20pcs per bag

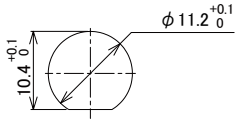
Panel Jack





Part No.	HRS No.	Applicable Cable	Purchase Unit
TNC-BPJ-1.5CR(A)(40)	CL0313-0304-6-40	1.5D-2V	20pcs per bag

■ Mounting Hole Dimension

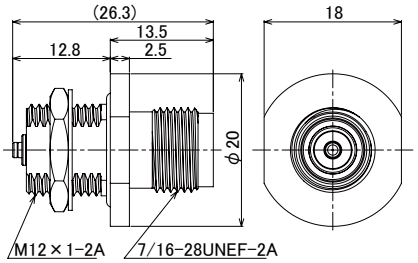


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Conversion Adapter

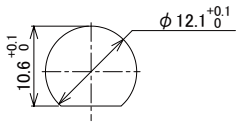
● Panel Adapter (Nut Type, Panel Mounting Part Waterproof)





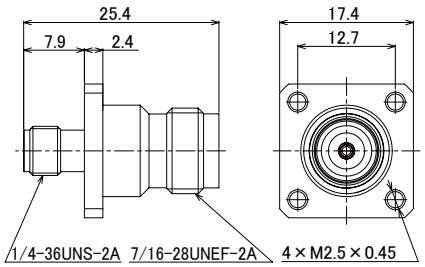
Part No.	HRS No.	TNC Side Contact	SMA Side Contact	Purchase Unit
TNC(R)J-U.FLJ-WBPA(40)	CL0311-0399-0-40	Male (Reverse Type)	Male	150pcs per tray

■ Mounting Hole Dimension



● Panel Adapter (4-screw Type)



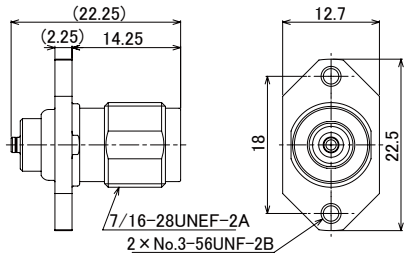


Part No.	HRS No.	TNC Side Contact	SMA Side Contact	Purchase Unit
HRMJ-TNCJ-PA(40)	CL0311-0202-3-40	Female	Female	5pcs per bag

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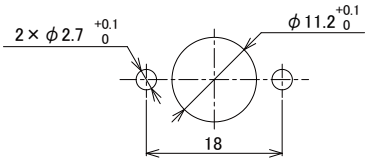
● Panel Adapter (2-screw Type)





Part No.	HRS No.	TNC Side Contact	U.FL Side Contact	Purchase Unit
TNC(R)J-U.FLJ-PA-2	CL0311-0416-7-00	Male (Reverse Type)	Male	50pcs per tray

■ Mounting Hole Dimension



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While Taking into Consideration

Specifications mentioned in this catalog are reference values.
When considering to order or use this product, please review the Drawing and Product Specifications sheets.
Use an appropriate cable when using the connector in combination with cables.
If considering usage of a non-specified cable, please contact your sales representative.
If assembly process is done by jigs & tools which are not identified by Hirose, the warranty of the product may be affected.
If considering usage for below mentioned applications, please contact your sales representative.
In cases where the application will demand a high level of reliability, such as automotive, medical instruments, public infrastructure, aerospace/defense etc. Hirose must review before assurance of reliability can be given.

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