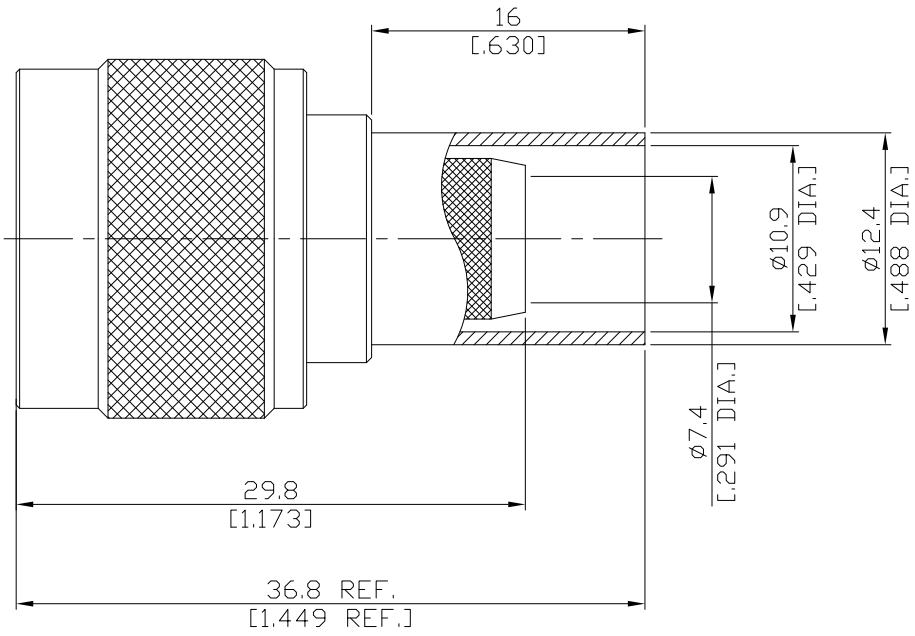
ROSNOL® RF/Microwave Interconnect

Technical Data Sheet

N Plug (Male) Straight Connector, Cable Entry: Crimp, Contact Pin: Solder Attachment for LMR400, Rosnol RNL400 DC-6GHz VSWR1.30

N1C50-R400A2 / 144



All dimensions are in mm [inch]
Tolerances according to DIN ISO 2768-mH

Interface

According to	IEC 61169-16, MIL-STD-348B/304

Electrical Data

Impedance	50 Ω	
Frequency	DC to 6 GHz	
VSWR (Return Loss)	≤ 1.30 (≥ 17.69 dB)	
Insertion Loss	≤ 0.05 x √F (GHz) dB	
Insulation Resistance	≥ 5 GΩ	
Center Contact Resistance	≤ 1 mΩ	
Outer Contact Resistance	≤ 0.25 mΩ	
Working Voltage	500 V rms	
Power handling (at 20 °C, sea level)	≤ 1000 W @ 1 GHz	≤ 700 W @ 2 GHz

- Limitations are possible due to the used cable type -

Material And Plating

Piece Parts	Material	Plating
Centre contact	Brass	Gold plating, 3 µinch (Non-magnetic nickel-phosphorus underplating, 80 µinch)
Body	Brass	Copper-Tin-Zinc Alloy
Insulator	PTFE	
Gasket	Silicone Rubber	
Coupling nut	Brass	Copper-Tin-Zinc Alloy
Ferrule	Brass	Copper-Tin-Zinc Alloy

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Mechanical Data

Coupling Mechanisms	Screw-Lock
Mating Cycles	≥ 500
Coupling Nut Retention	≥ 450 N
Center contact captivation: axial	≥ 28 N
Coupling Test Torque	≤ 1.7 Nm
Recommended Torque	1.36 Nm
Centre Contact	Soldered
Cable Entry	Crimped

Environmental Data

Temperature Range	-65°C to +165°C
Thermal Shock	MIL-STD-202, Method 107, Condition B
Corrosion	MIL-STD-202, Method 101, Condition B
Vibration	MIL-STD-202, Method 204, Condition B
Shock	MIL-STD-202, Method 213, Condition I
Moisture Resistance	MIL-STD-202, Method 106
RoHS	compliant

Suitable Cables

LMR400, RNL400

Weight

N/A

Packing

Single or 100

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Assembly Instruction

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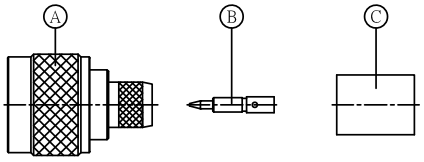
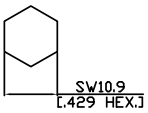
Connector Type:	N1C50-R400A2/144	Inner Conductor Contact:	Soldered
Suitable Cable:	LMR400, Rosnol RNL400	Outer Conductor Contact:	Crimped

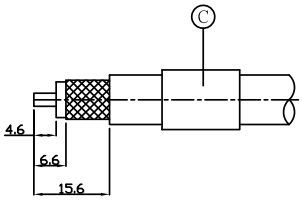
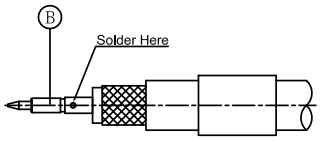
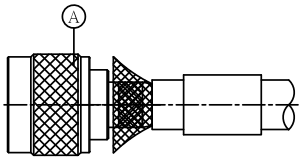
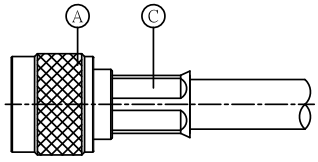
Parts List of Connector:



Crimped Ferrule
HEX. Crimp Size:



Assembly Steps:

Picture	Process	Attention/Check	Tools Required
	Push ferrule "C" over the cable. Prepare the cable according to the diagram.	Do not damage center contact, dielectric and braid.	Blade Scissor
	Solder center conductor "B" according to the diagram.		Solder Iron Solder Wire
	Splay out braid and insert cable in connector body "A" until it to stop.	Ensure that braid lies above crimp neck.	
	Slide ferrule "C" over braid and crimp.	Crimp as close to connector body "A" as possible. Do not damage connector body "A".	Crimp Tool: CT-L3 Crimp Insert: CI-L33F2A

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