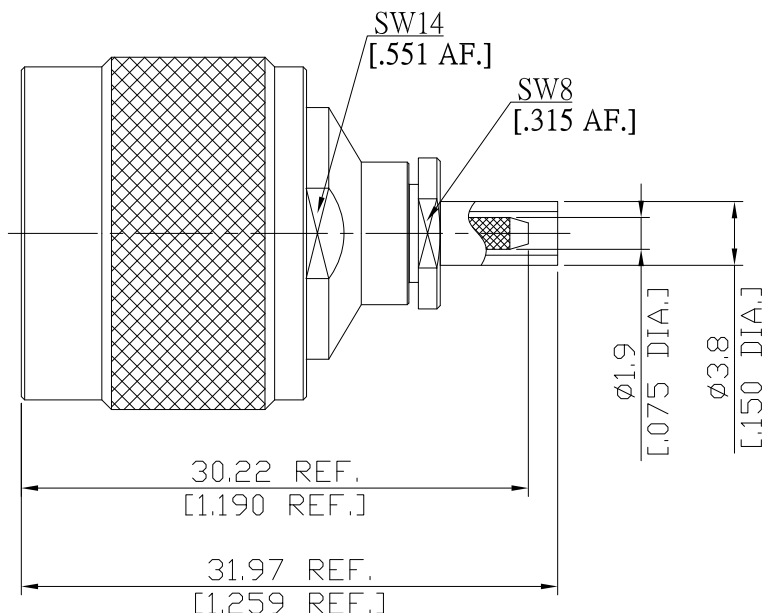


N Plug (Male) Connector Crimp/Contact Pin Solder Attachment  
for RG178 DC-12GHz VSWR1.25

**N1C50-G178A / H44**



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 12 GHz

VSWR (Return Loss)

≤ 1.05 (≥ 32.26 dB) DC to 1 GHz

≤ 1.07 (≥ 30 dB) 1 to 2.5 GHz

≤ 1.25 (≥ 19.08 dB) 2.5 to 12 GHz

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, VSWR 1.0)

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	Phosphor Bronze	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

The facts and figures herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Rev.:  
Date:  
JUL/12/2024

Rosnol RF/Microwave Technology Co., Ltd.  
[www.rosnol.com](http://www.rosnol.com); [info@rosnol.com](mailto:info@rosnol.com)  
Phone: +886-3-463-5095 / Fax: +886-3-463-5952  
N-CAGE Code: SFKK0 / ISO9001 Certified

Page

1/5

N Plug (Male) Connector Crimp/Contact Pin Solder Attachment  
for RG178 DC-12GHz VSWR1.25

**N1C50-G178A / H44**

**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	0.7 Nm to 1.1 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**

RG178

**Weight**

N/A

**Packing**

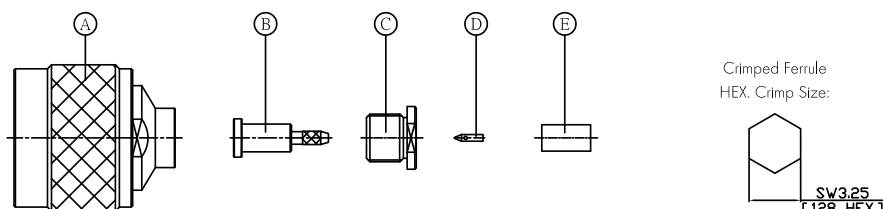
Single or 100

N Plug (Male) Connector Crimp/Contact Pin Solder Attachment  
for RG178 DC-12GHz VSWR1.25

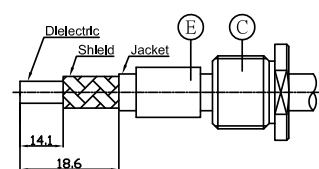
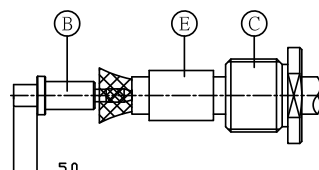
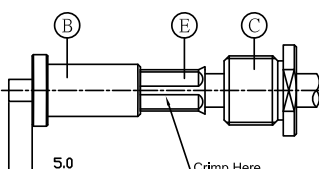
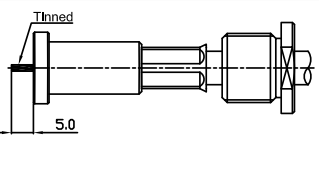
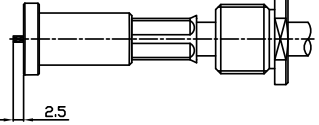
**N1C50-G178A / H44**

Connector Type:	N1C50-G178A/H44	Inner Conductor Contact:	Soldered
Suitable Cable:	RG178	Outer Conductor Contact:	Crimped

Parts List of Connector:



Assembly Steps:

Picture	Process	Attention/Check	Tools Required
	Push ferrule "E" and clamp nut "C" over the cable. Prepare the cable according to the diagram. Liquid tin the center conductor on length.	Do not damage dielectric and braid.	Blade Scissor
	Splay out braid and insert cable in connector barrel "B" until it to stop. Cable Dielectric extended length is 5mm.	Do not damage dielectric and braid.	Rosnol Resistance soldering unit Model 10899 and solder wire Crimp tool: CT-L3 Crimp insert: CH33T1A
	Slide ferrule "E" over braid and crimp.	Ensure that braid lies above crimp neck.	Crimp tool: CT-L3 Crimp insert: CH33T1A
 	Remove the cable dielectric and tinned. Cut the center conductor to 2.5mm length.	Do not damage center conductor.	Blade Scissor

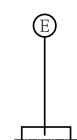
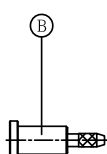
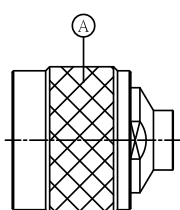


## N Plug (Male) Connector Crimp/Contact Pin Solder Attachment for RG178 DC-12GHz VSWR1.25

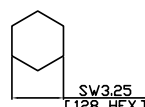
### N1C50-G178A / H44

Connector Type:	N1C50-G178A/H44	Inner Conductor Contact:	Soldered
Suitable Cable:	RG178	Outer Conductor Contact:	Crimped

Parts List of Connector:

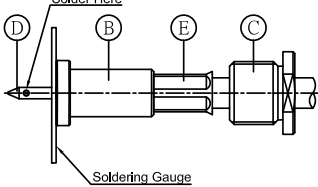
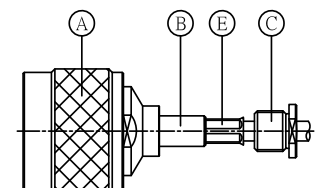
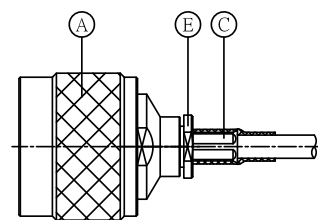


Crimped Ferrule  
HEX. Crimp Size:



SW3.25  
L128 HEX.1

#### Assembly Steps:

Picture	Process	Attention/Check	Tools Required
	Place soldering gauge on cable center conductor. Push contact "D" over inner conductor of soldering gauge up to barrel "B". Fill small amount of solder into bore of contact "D".	Please keep the soldering gauge tight. Do not let solder fill out of contact. Check the distance of the soldering gauge (0.1mm)	Rosnol Resistance soldering unit Model 10899 and solder wire. Soldering Gauge: SG-0010A
	Push prepared cable into connector "A". Apply the glue on the first complete screw thread groove and tighten clamp nut "C". Tightening torque: 1.5Nm ± 0.2Nm.	Keep the contact straight attention to correct inner conductor contact I Do not rotate the connector body "A". Be careful to not pollute the front surface.	Torque wrench 1.5 Nm. and AF 8mm. Spanner AF 14mm. LOCTITE THREADLOCKER.
	If needed: Slide shrink tube over connector body "A" and shrink with Hot-air-fan. Shrink tube is not include in the package.	Avoid excessive heat.	Hot-air-fan.

N Plug (Male) Connector Crimp/Contact Pin Solder Attachment  
for RG178 DC-12GHz VSWR1.25

**N1C50-G178A / H44**

Cable Assembly P/N	N1C50-RG178-N1C50-470
Connector 1	N1C50-G178A/H44
Connector 2	N1C50-G178A/H44
Cable	RG178
Cable Length	470mm
Vector Network Analyzer (VNA)	Keysight N5235A
Calibration Kit	Keysight 85518A
Test Method	Port 1: N Jack (Female)
	Port 2: N Jack (Female)
	Port 1 + DUT + Port 2

