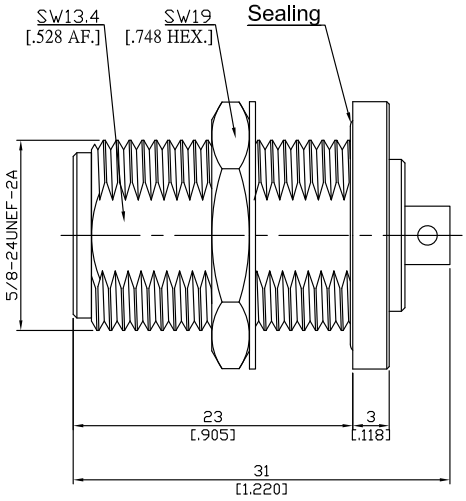
ROSNOL®
RF/Microwave Interconnect

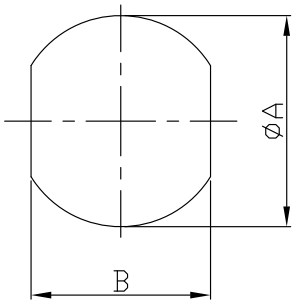
# Technical Data Sheet

N Jack (Female) Connector Cable Entry: Solder
Contact Pin: Plug-in Attachment Bulkhead Mount
For RG402, .141" Cables, DC-11GHz VSWR1.25

# N2EA50-EZ141A / 94




## MOUNTING DIMENSIONS




| | mm | | inch | |
|---|---|---|---|---|
| | MAX. | MIN. | MAX. | MIN. |
| A | 16.1 | 16 | .634 | .630 |
| B | 13.7 | 13.6 | .539 | .535 |

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 11 GHz | |
| VSWR (Return Loss) | ≤ 1.25 (≥ 19.08 dB) | |
| Insertion Loss | ≤ 0.05 x √F (GHz) dB | |
| Insulation Resistance | ≥ 5 x10³ MΩ | |
| Center Contact Resistance | ≤ 1 mΩ | |
| Outer Contact Resistance | ≤ 0.25 mΩ | |
| Working voltage | 500 V rms | |
| Power handling | 1000 W @ 1 GHz | 700 W @ 2 GHz |
| RF-leakage | ≥ 128 dB up to 1 GHz | |

*- Limitations are possible due to the used cable type -*

## Material And Plating

| Connector parts | Material | Plating |
|---|---|---|
| Centre contact | Beryllium Copper | Gold plating, 3 µinch<br>(Non-magnetic nickel-phosphorus underplating, 80 µinch) |
| Body | Brass | Copper-Tin-Zinc Alloy |
| Insulator | PTFE | |
| Gasket | Silicone Rubber | |





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## Mechanical Data

| | |
|---|---|
| Coupling mechanisms | Screw-lock |
| Mating Cycles | min. 500 |
| Centre Contact | Plug-in |
| Cable entry | Soldered |
| Center Contact Captivation: axial | ≥ 28 N |
| radial | ≥ 3 Ncm |
| Coupling Test Torque | max. 1.7 Nm |
| Recommended Torque | 0.7 Nm to 1.1 Nm |

## Environmental Data

| | |
|---|---|
| Temperature Range | -55°C to +155°C |
| Thermal shock | MIL-STD-202, Meth. 107, Cond. B |
| Corrosion | MIL-STD-202, Meth. 101, Cond. B |
| Vibration | MIL-STD-202, Meth. 204, Cond.B |
| Shock | MIL-STD-202, Meth. 213, Cond. I |
| Moisture Resistance | MIL-STD-202, Meth. 106 |
| RoHS | compliant |

## Suitable Cables

RG402, .141" Cables

## Packing

Single or 100





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# Assembly Instruction

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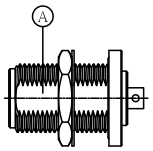
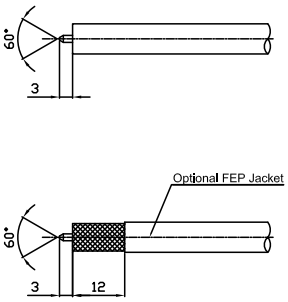
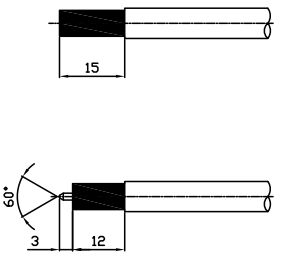
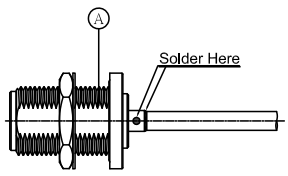
| | | | |
|---|---|---|---|
| Connector Type: | N2EA50-EZ141A/94 | Inner Conductor Contact: | Plug-in |
| Suitable Cable: | RG402, .141 Semi-Rigid and Semi-Flex Cables<br>RG402, .141 Flexible Cables | Outer Conductor Contact: | Soldered |

Parts List of Connector:




Assembly Steps:

| Picture | Process | Attention/Check | Tools Required |
|---|---|---|---|
| For Semi-Rigid and Semi-Flex Cables:<br>  | For Semi-Rigid and Semi-Form cable :<br>Trim cable according to drawing.<br>Chamfer center contact.<br>Dimension 15 mm applies to the FEP jacket cables. | Strip the cable end perpendicular to its axis.<br>Do not damage center contact. | Blades<br>Trim tools |
| For Flexible Cables:<br>  | For Flexible Cable:<br>Remove the cable jacket according to the picture and put the braid into liquid tin.<br>Remove cable dielectric according to the drawing.<br>Chamfer center contact. | Do not damage center contact, dielectric or braid.<br>The liquid tin has to cover a length of 15 mm.<br>If the cable does not fit into the cable entry, utilize a flat-nose plier to adjust the outer contact. | Blades<br>Solder pot<br>Flat-nose plier |
|  | Slide connector body "A" over the cable.<br>Solder connector body "A" to the cable (see drawing). | Avoid excessive heat.<br>Immediately use alcohol to wipe the soldered area to reduce joint temperature and remove residuals. | Solder iron |





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