



## N Male to N Female Bulkhead Cable 12 Inch Length Using PE-SR401AL Coax

### RF Cable Assemblies Technical Data Sheet

PE3993-12

#### Configuration

- Connector 1: N Male
- Connector 2: N Female Bulkhead
- Cable Type: PE-SR401AL-STRAIGHT

#### Features

- Max Frequency 18 GHz
- 69.5% Phase Velocity

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3993-12 type N male to type N female bulkhead 12 inch cable using PE-SR401AL coax is part of our full line of RF components available for same-day shipping. Pasternack's semi-rigid RF cable assemblies are ideal for high performance applications and can be formed, using proper tooling, to the routing pattern required. This Pasternack type N to type N cable assembly has a male to female gender configuration with 50 ohm semi-rigid PE-SR401AL-STRAIGHT coax. The PE3993-12 type N male to type N female cable assembly operates to 18 GHz. Our RF cable assembly with type N bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

#### Electrical Specifications

| Description                          | Minimum | Typical      | Maximum | Units        |
|--------------------------------------|---------|--------------|---------|--------------|
| Frequency Range                      | DC      |              | 18      | GHz          |
| Velocity of Propagation              |         | 69.5         |         | %            |
| Capacitance                          |         | 29.6 [97.11] |         | pF/ft [pF/m] |
| Dielectric Withstanding Voltage (AC) |         |              | 7,500   | Vrms         |

#### Specifications by Frequency

| Description           | F1  | F2  | F3 | F4 | F5 | Units |
|-----------------------|-----|-----|----|----|----|-------|
| Frequency             | 0.4 | 1   | 5  | 10 | 18 | GHz   |
| Insertion Loss (Typ.) | 4.5 | 7.5 | 22 | 33 | 48 | dB    |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Bulkhead Cable 12 Inch Length Using PE-SR401AL Coax PE3993-12](#)



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|                       |     |     |     |     |     |   |
|-----------------------|-----|-----|-----|-----|-----|---|
| Power Handling (Max.) | 962 | 661 | 265 | 174 | 100 | W |
|-----------------------|-----|-----|-----|-----|-----|---|

#### Mechanical Specifications

##### Cable Assembly

|          |                      |
|----------|----------------------|
| Length*  | 12 in [304.8 mm]     |
| Diameter | 0.827 in [21.01 mm]  |
| Weight   | 0.272 lbs [123.38 g] |

##### Cable

|                                      |                     |
|--------------------------------------|---------------------|
| Cable Type                           | PE-SR401AL-STRAIGHT |
| Impedance                            | 50 Ohms             |
| Inner Conductor Type                 | Solid               |
| Inner Conductor Material and Plating | Copper, Silver      |
| Dielectric Type                      | PTFE                |
| Number of Shields                    | 1                   |
| Shield Layer 1                       | Tinned Aluminum     |
| Jacket Diameter                      | 0.25 in [6.35 mm]   |
| One Time Minimum Bend Radius         | 0.25 in [6.35 mm]   |

##### Connectors

| Description                        | Connector 1      | Connector 2       |
|------------------------------------|------------------|-------------------|
| Type                               | N Male           | N Female Bulkhead |
| Specification                      | MIL-STD-348A     |                   |
| Impedance                          | 50 Ohms          | 50 Ohms           |
| Contact Material and Plating       | Brass, Gold      | Brass, Gold       |
| Contact Plating Specification      | 30μ in. minimum  | 30μ in. minimum   |
| Dielectric Type                    | Teflon           | Teflon            |
| Body Material and Plating          | Brass, Gold      | Brass, Nickel     |
| Body Plating Specification         | 3μ in. minimum   | 100μ in. minimum  |
| Coupling Nut Material and Plating  | Brass, Nickel    |                   |
| Coupling Nut Plating Specification | 100μ in. minimum |                   |

##### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm 3/8"$ , whichever is greater.

Cable assemblies that are 60 inches or less use straight coax, greater than 60 inches use coiled coax

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Bulkhead Cable 12 Inch Length Using PE-SR401AL Coax PE3993-12](#)



## N Male to N Female Bulkhead Cable 12 Inch Length Using PE-SR401AL Coax

### RF Cable Assemblies Technical Data Sheet

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**Compliance Certifications** (see [product page](#) for current document)

#### Plotted and Other Data

Notes:

- Values at 25°C, sea level.

#### How to Order

Part Number Configuration:

**PE3993**

- **xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: PE3993-12 = 12 inches long cable  
PE3993-100cm = 100 cm long cable

N Male to N Female Bulkhead Cable 12 Inch Length Using PE-SR401AL Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Bulkhead Cable 12 Inch Length Using PE-SR401AL Coax PE3993-12](#)

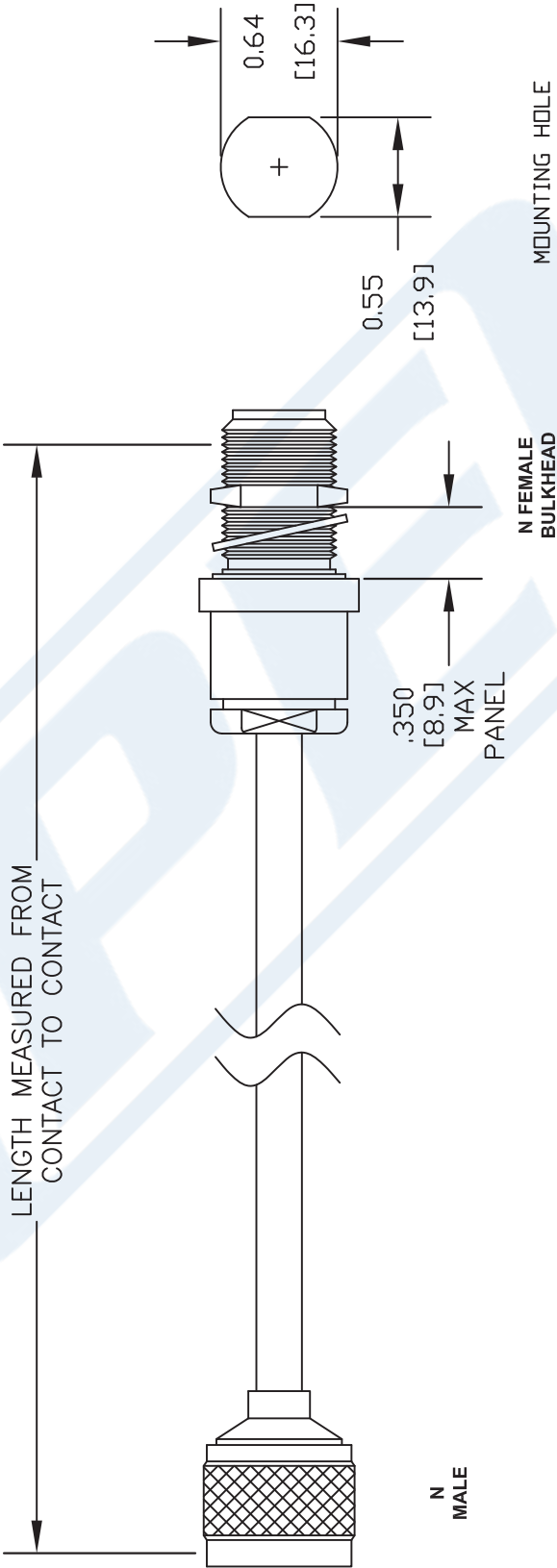
URL: <https://www.pasternack.com/n-male-n-female-pe-sr401al-cable-assembly-pe3993-12-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE3993-12 CAD Drawing

N Male to N Female Bulkhead Cable 12 Inch Length Using PE-SR401AL Coax

| Standard Lengths |                         |
|------------------|-------------------------|
| -12              | 12"                     |
| -24              | 24"                     |
| -36              | 36"                     |
| -48              | 48"                     |
| -60              | 60"                     |
| -XXX             | Custom Length in Inches |



NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].  
4. LENGTH TOLERANCE IS  $\pm 1.5\%$  OR  $3/8"$ , WHICHEVER IS GREATER.

DWG TITLE  
**PE3993-XX**

REV. - FSCM NO. 53919 CAD FILE 060407 SCALE N/A SIZE A 127

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