Ethernet and USB Connection System for Harsh Environments

With J-Tech’s RJ45 and USB rugged Ethernet connectors you can use industry standard RJ45 and USB cordsets in a rugged metallic plug without any special tools needed for cable termination. The MIL-DTL-38999 Series III shells provide protection against mechanical and environmental conditions in harsh environments.

Features
RoHS compliant plating options are available.
Cable versions are available with IP68 Backshells using a plastic gland or EMI Backshells.
Receptacles are available with inserts grounded to the shell of the connector.
Through-Bulkhead Receptacles are available - Designed to mate with EMI/RFI Plug on each side of receptacle.
Inserts have multiple options for insert rotation (mechanical coding) that can be changed by the user.
Connectors with cable termination will accept cable diameters from 0.170” O.D. to 0.460” O.D.
All connector kits are provided with insert removal tool.
Accessories are available including metal dust caps, self-closing caps and panel gaskets.
Consult factory for further information: j-tech@conesys.com

Mechanical
Shell Material: Aluminum Alloy
Shell Types: EMI/RFI Plug
Wall Mount Receptacle
Jamnut Receptacle
Inline Receptacle
Plating: Electroless Nickel
Olive Drab Cadmium
Black Nickel - ROHS
Termination: Cable Termination
Receptacle, Feed-Thru
Receptacle, PC-Tail
Receptacle, Bulkhead Feed-Through

Data Transmission
10 BaseT, 100 BaseTX and 1000 BaseT
Cat 5e per TIA/EIA 568B, Class D per ISO/IEC 11801
Cat 6 per TIA/EIA 568B, Class E per ISO/IEC 11801
USB-A Specification 2.0 - up to 480Mb/s for High Speed USB

Environmental
Sealing: IP68 (Temporary immersion, when mated)
Temperature: -40°C to + 85°C
Durability: 500 mating cycles
Salt Spray: 48 h (Electroless Nickel plating)
>500 h (Olive Drab Cadmium, Black Nickel)
Vibration: 10-500 Hz, 20 g

j-tech@conesys.com
## Connector Part Numbers

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<thead>
<tr>
<th>J-Tech Prefix</th>
<th>JT93</th>
<th>R</th>
<th>FN</th>
<th>5</th>
<th>19</th>
<th>C</th>
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### Shell Type
- FE = Wall Mount Receptacle with 360° EMI backshell (See note 1 below)
- FG = Wall Mount Receptacle with IP68 Backshell
- FN = Wall Mount Receptacle, no Backshell
- JE = Jamnut Receptacle with 360° EMI backshell (See note 1 below)
- JN = Jamnut Receptacle, no Backshell (See note 2 below)
- JP = Jamnut Receptacle with IP68 Backshell
- KE = Inline Receptacle, with 360° EMI backshell (See note 1 below)
- KG = Inline Receptacle, with IP68 Backshell
- KN = Inline Receptacle, no Backshell
- PE = EMI/RFI Plug with 360° EMI backshell (See note 1 below)
- PG = EMI/RFI Plug with IP68 Backshell

### Category
- 5 = CAT 5E
- 6 = CAT 6
- 2 = USB 2.0

### Shell Size
- 15 = Size 15 Shell (USB-A only)
- 17 = Size 17 Shell (RJ45 or USB-A)
- 19 = Size 19 Shell (RJ45 Only)

### Plating
- N = Electroless Nickel
- C = Olive Drab Cadmium
- B = Black Nickel, ROHS Compliant

### Shell Polarization
- N = Normal
- A, B, C, D or E

### Rear Termination
- P = PC Tail (Receptacles Only, Shell Style: FN, JN only)
- F = Female RJ45 or USB-A (Receptacles Only, all Shell Styles)
- C = Cable Termination
- T = Through Bulkhead Receptacle (designed for EMI/RFI plug to mate to both sides, Shell Styles: FN, JN only)

### Grounding Options (for Receptacle Inserts)
- N = If plug shell chosen, use N
- U = RJ45 or USB-A Insert not Grounded to shell (Receptacles Only)
- G = RJ45 or USB-A Insert grounded to shell (Receptacles Only)

### Modification Codes
Consult Factory for Modifications

Example: JT93RFNS19CNPG - This p/n is a Cat 5e RJ45 Wall Mount Receptacle in size 19 shell with olive drab cadmium plating, N polarization, no backshell, pc-tail termination, grounded insert.

**Note 1:** Connectors with 360° EMI Backshells will require customer to crimp standard RJ45 to selected cable.

**Note 2:** Standard Jamnut O-Ring is silicone. Consult factory for other materials.

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