DATA-CON-X™: SEALED USB TYPE A & B CONNECTORS

NEW PRODUCT BULLETIN C711
FEATURES & BENEFITS

• Sealed to IP67 & IP68 NEMA 250 (6P) (when mated)
• Feed-thru termination on the panel for easy field installation
• Field installable design is easy to assemble
• Quick connect bayonet or threaded style interface
• RoHS compliant assembly
• UV F1 rated housing

APPLICATIONS

• Any sealed data transmission
• Military or industrial GPS location devices
• Instrumentation
• Medical data carts
• Data acquisition units
• General industrial electronic applications
# SPECIFICATIONS

## MECHANICAL SPECIFICATIONS
- **Life:** Minimum 350 insertion/withdrawal cycles
- **Hex Nut Torque:** 10-12 in-lb max
- **Coupling Locking Style:** Quick Connect (Bayonet) or Threaded
- **Backshell Style:** Threaded Nut-Squeezed Grommet

## ELECTRICAL SPECIFICATIONS
- **Current Rating:** 1.5 A
- **Voltage Rating:** Per USB 2.0 standard
- **Contact Resistance:** 30 mΩ max
- **Insulation Resistance:** 1000 MΩ min
- **Dielectric Withstanding Voltage:** 500 V AC/one minute

## ENVIRONMENTAL SPECIFICATIONS
- **Operating Temperature Rating:** 0 °C to +50 °C (+32ºF to +122°F)
- **Storage Temperature:** -20 °C to +60 °C (-4ºF to +140°F)
- **Moisture Resistance:** Mil-Std 202G Method 106G
- **Insulation Resistance:** Mil-Std 202G Method 302
- **Vibration:** Mil-Std 202G Method 201A
- **Thermal Shock:** Mil-Std 202G Method 107G
- **Weathertight:** IP67 & IP68, NEMA 250 (6P) (when mated)
- **Salt Spray:** Mil-Std 202G Method 101E
- **Product Ratings:** Tested per USB 2.0

## MATERIAL SPECIFICATIONS
- **Plug Nut, Coupling Ring:** Thermoplastic
- **Plug Housing, Insert:** Thermoplastic
- **Sealing Ring, O-Ring:** Elastomer
- **Panel Housing, Hex Nut:** Thermoplastic
- **Retaining Nut:** Copper Alloy, Nickel Plated
- **Gasket:** Elastomer
- **USB A or B Plug:**
  - **Shell:** Steel, Nickel Plated
  - **Contacts:** Copper Alloy, Gold Plated
  - **Insulator:** Thermoplastic UL94V-0, White
- **USB A Receptacle:**
  - **Shell:** Steel, Nickel Plated
  - **Contacts:** Copper Alloy, Gold Plated
  - **Insulator:** Thermoplastic UL94V-0, White
- **USB B Receptacle:**
  - **Shell:** Copper Alloy, Nickel Plated
  - **Contacts:** Copper Alloy, Gold Plated
  - **Insulator:** Thermoplastic UL94V-0, White

## MOLDED CABLE ASSEMBLIES
- Consult factory for molded options

## OTHER
- **Flame Rating:** UL 94V-0
- **Recommended Panel Thickness:**
  - Quick Connect Coupling: 1/32” - 3/16” [0.8mm to 4.8mm]
  - Threaded Coupling: 1/32” - 5/32” [0.8mm to 3.9mm]
- **Recommended Cable Type**
  - **Conductor Type:** Solid or Stranded Conductors
  - **Outer Cable O.D. Range:**
    - Product 150 Series: 0.134”-0.170” [3.40mm-4.33mm]
    - Product 180 Series: 0.171”-0.208” [4.34mm-5.28mm]
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USB FIELD INSTALLABLE CABLE PLUG PART NUMBER CHART

<table>
<thead>
<tr>
<th>USB FIELD INSTALLABLE CABLE PLUG ASSEMBLY</th>
<th>PLUG TYPE</th>
<th>COUPLING TYPE</th>
<th>SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCC</td>
<td>USBA = &quot;A&quot; 2.0</td>
<td>B = QUICK CONNECT</td>
<td>150 = ø0.134-0.170 (3.40-4.33MM)</td>
</tr>
<tr>
<td></td>
<td>USBB = &quot;B&quot; 2.0</td>
<td>T = THREADED</td>
<td>180 = ø0.171-0.208 (4.34-5.28MM)</td>
</tr>
</tbody>
</table>

USB PANEL MOUNT FEED-THRU CONNECTORS PART NUMBER CHART

<table>
<thead>
<tr>
<th>USB FIELD INSTALLABLE PANEL HOUSING ASSEMBLY</th>
<th>RECEPTACLE TYPE (SEALED END)</th>
<th>COUPLING TYPE</th>
<th>RECEPTACLE TYPE (NON-SEALED END)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCP</td>
<td>USBA = &quot;A&quot; 2.0</td>
<td>B = QUICK CONNECT</td>
<td>USBA = &quot;A&quot; 2.0 (NOT AVAILABLE WITH USBA ON SEALED END)</td>
</tr>
<tr>
<td></td>
<td>USBB = &quot;B&quot; 2.0</td>
<td>T = THREADED</td>
<td>USBB = &quot;B&quot; 2.0 (NOT AVAILABLE WITH USBB ON SEALED END)</td>
</tr>
</tbody>
</table>

Please visit conxall.com for the most up-to-date product specifications. Made in the USA.
NOTES:
1. DCP-USBAB-USBB SHOWN IN EXPLODED VIEW. (USB A TO B WITH QUICK CONNECT COUPLING.)
2. MATED ASSEMBLY MEETS IP-67 & IP-68, NEMA 250 (6P).
3. THESE ASSEMBLIES ARE RoHS COMPLIANT.

MATERIALS:
- GASKET: ELASTOMER
- HEX NUT: THERMOPLASTIC
- USB PANEL HOUSING: THERMOPLASTIC
- RETAINING NUT: COPPER ALLOY, NICKEL PLATED
- USB A RECEPTACLE:
  - SHELL: STEEL, NICKEL PLATED
  - CONTACTS: COPPER ALLOY, GOLD PLATED
  - INSULATOR: THERMOPLASTIC
- USB B RECEPTACLE:
  - SHELL: COPPER ALLOY, NICKEL PLATED
  - CONTACTS: COPPER ALLOY, GOLD PLATED
  - INSULATOR: THERMOPLASTIC

OTHER:
- RECOMMENDED PANEL THICKNESS:
  - QUICK CONNECT COUPLING: 1/32" TO 3/16" (0.8mm to 4.8mm)
  - THREADED COUPLING: 1/32" TO 5/32" (0.8mm to 3.9mm)
NOTES:

DCC-USBAB-180 SHOWN IN EXPLODED VIEW. (USB TYPE A WITH QUICK CONNECT COUPLING.)

MATERIALS:

- PLUG HOUSING: THERMOPLASTIC
- SEALING NUT, COUPLING RING: THERMOPLASTIC
- SEALING RING: ELASTOMER
- O-RING: ELASTOMER
- INSERT: THERMOPLASTIC
- USB PLUG:
  - INSULATOR: THERMOPLASTIC
  - CONTACTS: COPPER ALLOY, GOLD PLATED
  - SHIELD: COPPER ALLOY, TIN PLATED

ELECTRICAL:

- VOLTAGE RATING: PER USB 2.0 STANDARD
- CONTACT RESISTANCE: 30 MILLIOHM MAXIMUM
- CONTACT CURRENT RATING: 1.5 A MINIMUM
- INSULATION RESISTANCE: 1000 MEGOHMS MINIMUM
- WITHSTANDING VOLTAGE: 500VAC FOR 1 MINUTE

PRODUCT RATING:

- IP67 & IP68, NEMA 250 (6P) WHEN MATED
- USB A PLUG: USB 2.0
- USB B PLUG: USB 2.0

OTHER:

- OPERATING TEMPERATURE: 0 °C TO +50 °C
- RECOMMENDED CABLE TYPE: SOLID OR STRANDED CONDUCTORS
- OUTER CABLE O.D. RANGE:
  - PRODUCT 150 SERIES: 0.134-0.170 [3.40mm-4.33mm]
  - PRODUCT 180 SERIES: 0.171-0.208 [4.34mm-5.28mm]