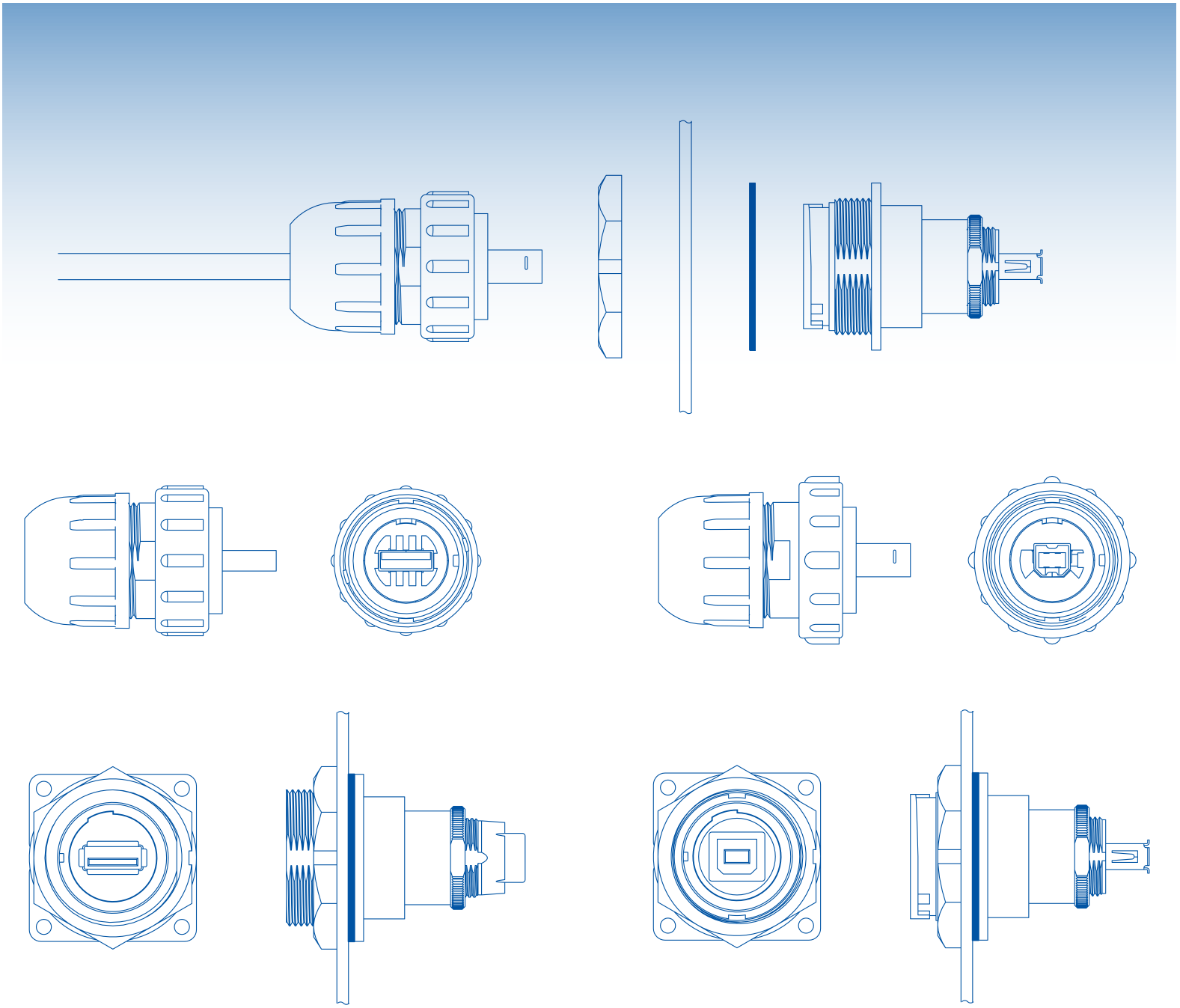

DATA-CON-X™: SEALED USB TYPE A & B CONNECTORS

NEW PRODUCT BULLETIN C711

CONXALL®

A SWITCHCRAFT COMPANY

CONXALL • 601 E Wildwood • Villa Park, IL 60181 • 630-834-7504

Please visit conxall.com for the most up-to-date product specifications. Made in the USA.

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

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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

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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:	1/32" - 3/16" [0.8mm to 4.8mm] - Quick Connect Coupling 1/32" - 5/32" [0.8mm to 3.9mm] - Threaded Coupling
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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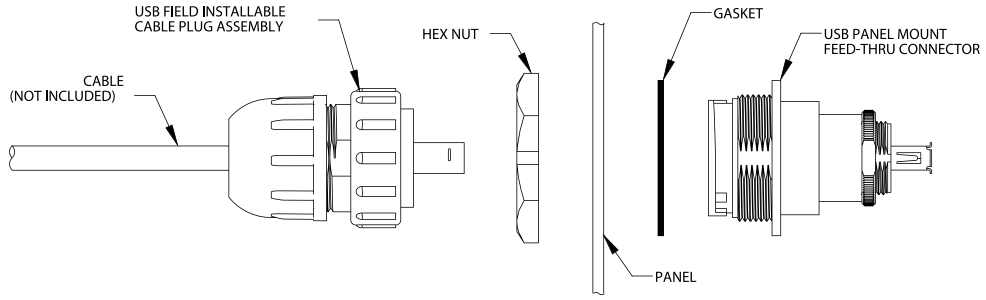
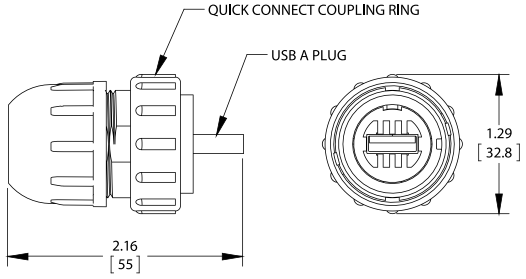
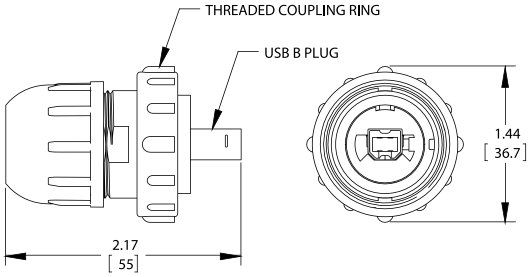


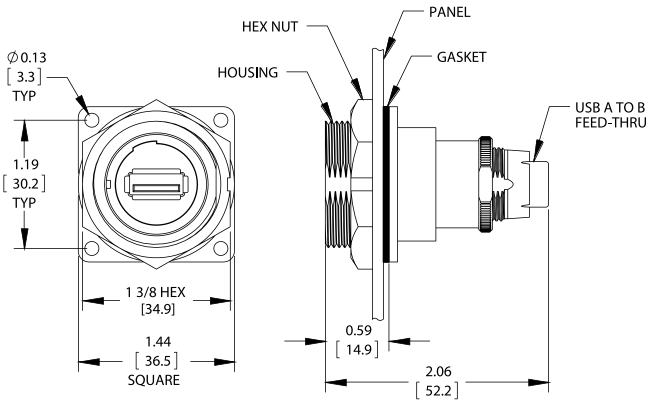
USB A FIELD INSTALLABLE CABLE PLUG
(SHOWN WITH QUICK CONNECT COUPLING)



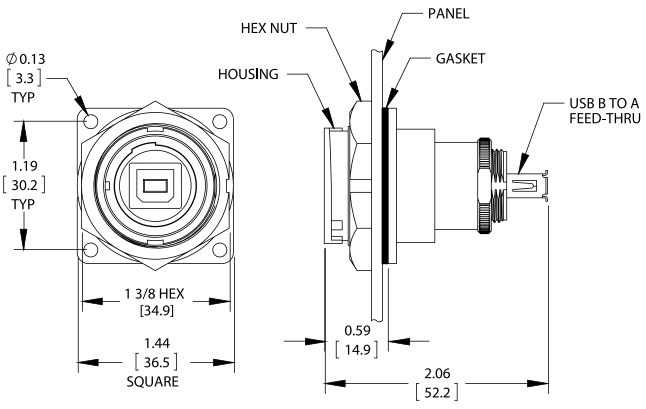
USB B FIELD INSTALLABLE CABLE PLUG
(SHOWN WITH THREADED COUPLING)



USB PANEL MOUNT FEED-THRU CONNECTOR
(SHOWN WITH USB A TO B FEED-THRU CONNECTOR)
(SHOWN WITH THREADED HOUSING)



USB PANEL MOUNT FEED-THRU CONNECTOR
(SHOWN WITH USB B TO A FEED-THRU CONNECTOR)
(SHOWN WITH QUICK CONNECT HOUSING)



USB FIELD INSTALLABLE CABLE PLUG PART NUMBER CHART			
USB FIELD INSTALLABLE CABLE PLUG ASSEMBLY	PLUG TYPE	COUPLING TYPE	SERIES
DCC	**USBA** = USB "A" 2.0 **USBB** = USB "B" 2.0	**B** = QUICK CONNECT **T** = THREADED	**150** = ø0.134-0.170 [3.40-4.33MM] **180** = ø0.171-0.208 [4.34-5.28MM]

USB PANEL MOUNT FEED-THRU CONNECTORS PART NUMBER CHART			
USB FIELD INSTALLABLE PANEL HOUSING ASSEMBLY	RECEPTACLE TYPE (SEALED END)	COUPLING TYPE	RECEPTACLE TYPE (NON-SEALED END)
DCP	**USBA** = USB "A" 2.0 **USBB** = USB "B" 2.0	**B** = QUICK CONNECT **T** = THREADED	**USBA** = USB "A" 2.0 (NOT AVAILABLE WITH USBA ON SEALED END) **USBB** = USB "B" 2.0 (NOT AVAILABLE WITH USBB ON SEALED END)

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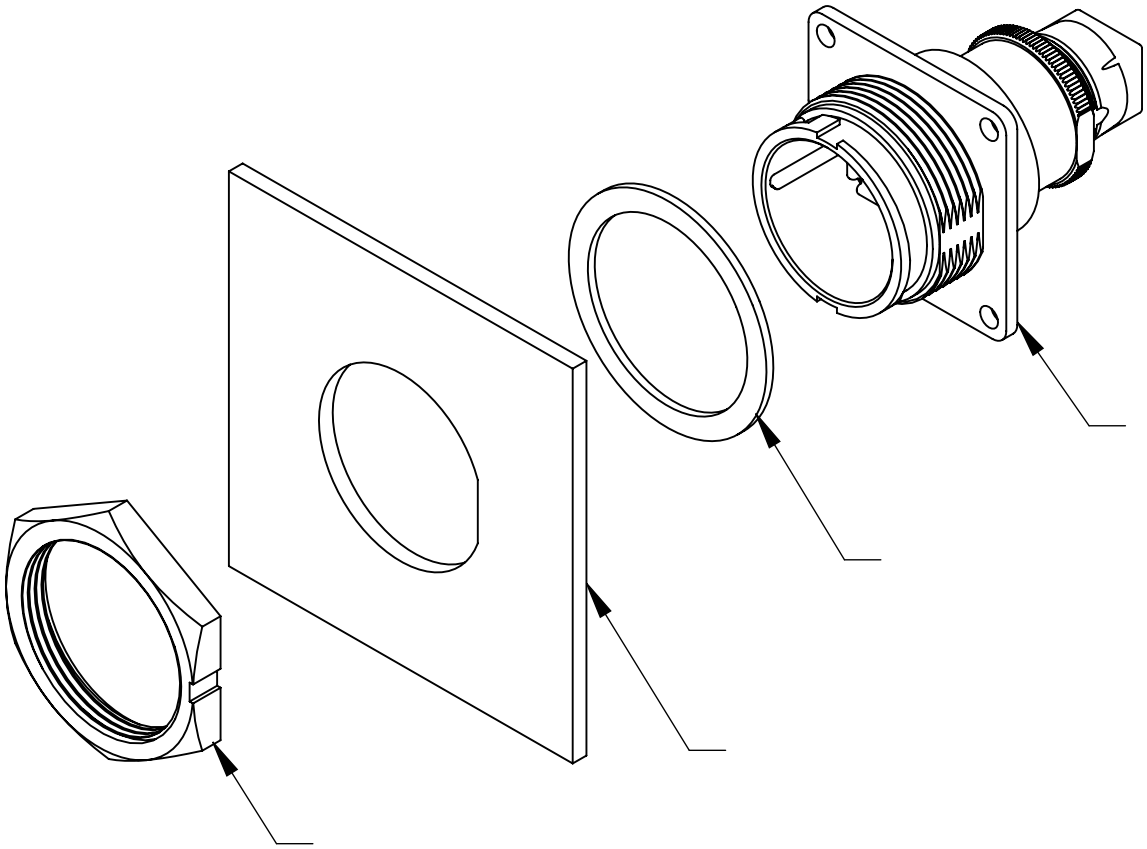


NOTES:

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:

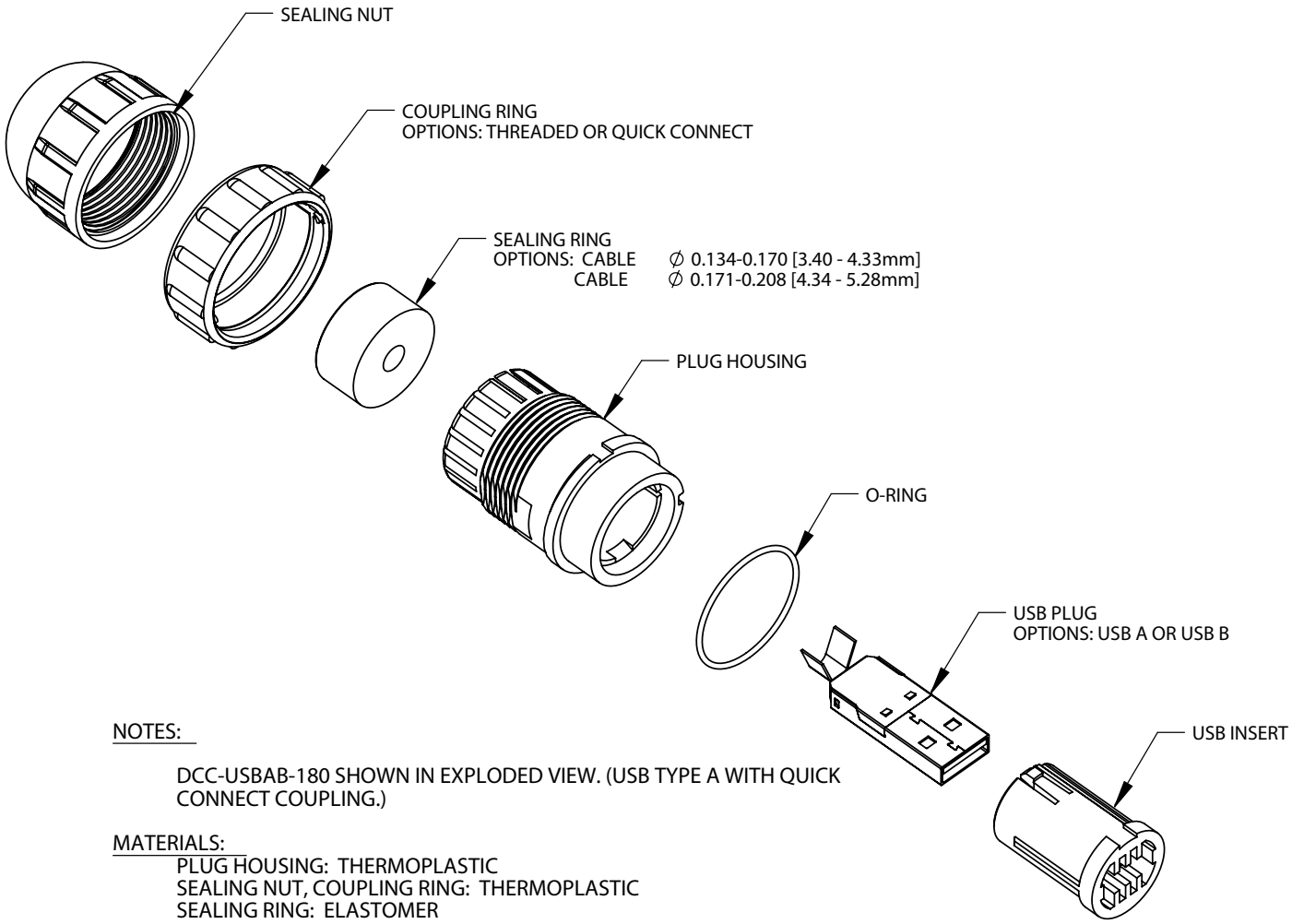
- GASKET: ELASTOMER
- HEX NUT: THERMOPLASTIC
- USB PANEL HOUSING: THERMOPLASTIC
- RETAINING NUT: COPPER ALLOY, NICKEL PLATED
- USB A RECEPTACLE:
  - SHELL: STEEL, NICKEL PLATED
  - CONTACTS: COPPER ALLOY, GOLD PLATED
  - INSULATOR: THERMOPLASTIC
- USB B RECEPTACLE:
  - SHELL: COPPER ALLOY, NICKEL PLATED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

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

NEW PRODUCT BULLETIN C711



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 MILLIOHMS MAXIMUM
CONTACT CURRENT RATING: 1.5 A MINIMUM
INSULATION RESISTANCE: 1000 MEGAOHMS 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]

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