Shielded Cable Assemblies

MIL-STD-83513 Cable Assemblies

Cinch DURA-CON D-shaped micro miniature rectangular connectors are designed for applications that require a rugged, high performance, densely compacted interconnect. DURA-CON is the ideal connector for applications where weight and space must be kept to a minimum while maintaining maximum reliability.

Reliability is assured with the unique twist pin providing 7 points of contact when mated. Qualified (QPL) to MIL-DTL-83513, micro-D DURA-CON are one of the most widely used 0.05in (1.27mm) pitch connectors. Typical applications for these connectors are miniaturized military and aerospace electronics and data processing equipment, where shorter signal paths are needed.

**Features**
- MIL-DTL-83513
- 78 ohm twinax cable
- 50 and 75 ohm triax cable
- 50 and 75 ohm triax cable

**Materials**

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Contact (Male Pins)</strong></td>
<td>Copper Alloy. Gold per MIL-DTL-45204, Type 1</td>
</tr>
<tr>
<td><strong>Contact (Female Sockets)</strong></td>
<td>Copper Alloy. Gold per MIL-DTL-45204, Type 1</td>
</tr>
<tr>
<td><strong>Insulator</strong></td>
<td>PBT&lt; per MIL-M-24519 or &gt;DAP&lt; PER ASTM-D5948</td>
</tr>
<tr>
<td><strong>Hardware</strong></td>
<td>303SS&lt; Passivate Dip per SAE-AMS-QQ-P-35</td>
</tr>
<tr>
<td><strong>Interfacial Gasket</strong></td>
<td>FVMQ&lt; per MIL-R-25988 or &gt;PMQ&lt; PER ZZ-R-765</td>
</tr>
<tr>
<td><strong>Dustcap</strong></td>
<td>LDPE&lt; or anti-static &gt;HDPE&lt;</td>
</tr>
<tr>
<td><strong>Wire</strong></td>
<td>See sales code nomenclature</td>
</tr>
</tbody>
</table>

**Electrical**

<table>
<thead>
<tr>
<th><strong>Current Rating</strong></th>
<th>3 AMP MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temperature Rating</strong></td>
<td>-55 °C TO +135 °C</td>
</tr>
<tr>
<td><strong>Insulation Resistance</strong></td>
<td>5000 mΩ min</td>
</tr>
<tr>
<td><strong>DWV at Seal Level</strong></td>
<td>600 Vac</td>
</tr>
<tr>
<td><strong>DWV 70,000 feet Altitude</strong></td>
<td>150 Vac</td>
</tr>
<tr>
<td><strong>Contact Resistance</strong></td>
<td>8 mΩ max</td>
</tr>
</tbody>
</table>
Socket Connector

19.99 MAX
14.35
8.53 MIN

ALL DIMENSIONS ARE IN mm

(W)

4.98±0.025 2.36±0.05

15.9

All Dimensions

(DWV AT SEA LEVEL: 600 VAC. INSULATION RESISTANCE: 5000 MΩ MIN.)

Hardware

Float Mount (Front Panel Mount)
Hexhead Jackscrew (Non-Removeable)
Hexhead Jackscrew with Circlip
Jackpost
Float Mount (Rear Panel Mount)
Jackscrew Slot Head with Circlip

Scale 2:1

Plug Connector

19.99 MAX
14.35
8.43 MAX

ALL DIMENSIONS

(W)

19.89 MAX.
8.53 MIN.

14.35

(DWV AT SEA LEVEL: 600 VAC. INSULATION RESISTANCE: 5000 MΩ MIN.)

Scale 2:1

Ordering Information

**Series**
- DC, DC

**Insulator Type**
- C = Diallylphthalate (Glass-Reinforced)
- D = Diallylphthalate (Glass-Reinforced)

**Mounting Type**
- C = Cable Assembly

**Shell Size**
- 8, 9, 21, 25, 31, 37, 51, 100

**Gender**
- P = Plug
- S = Socket
- GP = Double Ended Plug - Plug
- GS = Double Ended Socket - Socket
- PS = Double Ended Plug - Socket

**Wire Size (AWG)**
- 4 = 24
- 6 = 26
- 8 = 28
- 0 = 30

**Wire Type**
- E = MIL-W16878/4 7 Strand (NEMA-HP3)
- F = MIL-W16878/6 7 Strand (NEMA-HP3)
- G = MIL-W16878/4 19 Strand (NEMA-HP3)
- H = MIL-W16878/6 19 Strand (NEMA-HP3)
- K = SAE-AS-22759/11
- L = SAE-AS-22759/19

**Insulator Type**
- N = No Ground Spring
- G = Ground Spring (Plug Only)

**Hardware**
- B = No Hardware
- F = Float Mount (Front Panel Mount)
- L = Hexhead Jackscrew (Non-Removeable)
- M = Hexhead Jackscrew/Circlip
- P = Jackpost
- R = Float Mount (Rear Panel Mount)
- S = Jackscrew Slot Head/Circlip

**Shell Finish**
- No Designation = Cadmium
- N = Electroless Nickel
- G = Gold

**Termination**
- N = No Shield / No Jacket
- A = Braided Shield
- C = Braided Shield with Expando - HR Jacket
- D = No Shield with Expando - HR Jacket

**Insulation Color**
- 1 = White
- 2 = Yellow
- 5 = Color Coded per MIL-STD-681 System 1