Ruggedized Fiber Optic Connectors

Ruggedized Singleway Connector (RSC)

Product Facts

- Insert-to-insert keying assists precision alignment
- Individually rear insertable/removable optical contacts enable easy assembly
- Backshells and adapters available for most single and multimode cable types

Specifications

- Fiber Type – 8, 50, 62.5, 85/125µm, 100/140µm, 200/230µm, 200/280µm, 200/300µm
- Cable size – 1.6mm to 5mm
  - Simplex tight jacket Kevlar reinforced secondary buffered fiber

Materials

- Shell – Arca
- Contact body – Arca
- Ferrule – Zirconia
- Alignment sleeve – Zirconia
- Seals – Fluorosilicone
- Plating – Nickel

Optical Performance

- Insertion loss – 0.25dB typical
- Return loss – >40dB typical*
- Repeatability – Better than 0.2dB

Temperature

- High temperature endurance – +155°C*
- Low temperature endurance – -65°C*

Durability – not less than 500 matings

Key Features

- Precision Zirconia ceramic ferrule and alignment sleeve to ensure superior repeatable optical performance with physical contact polishing techniques
- Manufactured from Arca for corrosion resistance
- Easy access to ferrule to facilitate simple cleaning and maintenance
- Common ferrule carriers for the plug and receptacle
- Optical contact is sprung loaded in both the plug and receptacle to maintain physical contact even under severe shock or vibration
- Simple termination process and tooling
- Anti-vibration coupling mechanism
- Six alternative shell keyway orientations provide protection from inadvertent mis-mating
- Able to accommodate various sizes of multimode and singlemode fiber - (8/125, 50/125, 62.5/125, 100/140, 200/280mm)
- Able to accommodate various sizes of simplex cable (1.6mm - 5mm)
- Compatible with HA Connector series
Ruggedized Fiber Optic Connectors

Ruggedized Singleway Connector (RSC) (Continued)

Dimensional Information
All dimensions in inches (except threads). To complete part number for ordering see ‘ordering information’

Plug

Free Receptacle

Receptacles

Jam Nut Receptacle

Dummy Receptacle

Dummy Receptacles and Mounting

Procap
Ruggedized Fiber Optic Connectors

Ruggedized Singleway Connector (RSC) (Continued)

Ordering Information

Series:

Shell style:
00 = Bulkhead receptacle
06 = Plug
07 = Jam nut
20 = Protective cap plug
30 = Dummy receptacle
40 = Protective receptacle

Shell orientation:
N, A, B, C, D, E

*Special glass braid
For other cable types, please consult the sales office.
Example part number: RSC06E-N-100
RSC plug, 'N' orientation, 2.5mm cable

Optical Contacts
(Must be ordered separately)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Fiber size</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singlemode</td>
<td>8/125µm</td>
<td>456099SM-128</td>
</tr>
<tr>
<td></td>
<td>50, 62.5/125µm</td>
<td>456099-126</td>
</tr>
<tr>
<td></td>
<td>100/140µm</td>
<td>456099-145</td>
</tr>
<tr>
<td></td>
<td>100/172µm</td>
<td>456099-176</td>
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<tr>
<td>Multimode</td>
<td>200/220µm</td>
<td>456099-224</td>
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<tr>
<td></td>
<td>200/230µm</td>
<td>456099-232</td>
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<tr>
<td></td>
<td>200/280µm (flat faced)</td>
<td>454103-283</td>
</tr>
<tr>
<td></td>
<td>200/300µm</td>
<td>453800-305</td>
</tr>
</tbody>
</table>

Example part number: RSC plug, 'N' orientation, 2.5mm cable

Accessories

Please contact technical support for termination tools and consumables.

Hermetic Receptacle (RSC07HE)

Key Features
• Compatible with the RSC plug connector
• Leak rate < 1x10^-6 cc/s
• 125°C temperature rating

Dimensional Information
All dimensions in inches (except threads). To complete part number for ordering see ‘ordering information’

Ordering Information

Series:

Shell orientation - N, A, B, C, D, E

Fiber size - 125, 140, 280µm

Pigtail length - cm
Example part number: (pigtail cable 900µm buffer only)
RSC07HE-N-283-100 receptacle, pigtail, 'N' orientation, 280µm fiber, 100cm cable

Quality Approvals
• Civil Aviation Authority A8-1
• BS EN ISO 9001
• Military Spec Approvals 38999
• BS9000 and CECC
• Underwriters Laboratories
• BS EN ISO9001:2000 (BSI)
• BS/EN 9100:2003 (BSI)

• AS9100 Rev B (BSI)
• AS9120:2002 (BSI)
• EASA Part 21 Subpart G (CAA)
• BS9000 (BSI)
• Underwriters Laboratories (UL)
• Military Spec Approvals 38999 (DSCC)