About the TACBeam® Connector

Amphenol Fiber Systems International (AFSI) offers a MIL-PRF-83526/20A & /21A compliant expanded beam rugged fiber optic connector for military and industrial applications. Expanded beam technology expands and collimates the optical signal through the connector interface path, resulting in a diameter many times that of the original beam. The optical beam is then refocused into the core of the receiving fiber. The larger beam diameter improves insertion loss performance in the presence of dust and debris. Also, because the lenses do not physically contact, there is no wear on the termini, allowing the connector to be mated and demated thousands of times without affecting optical performance.

The AFSI TACBeam® is hermaphroditic, which facilitates the concatenation of multiple cable assemblies to support varying distance requirements. The connector is available in both single mode and multimode versions, can be configured to support one to four fiber optic channels using a common insert and has been designed to accept a wide variety of cables to suit any application.
M83526/20 & 21 Compliant Expanded Beam Rugged Fiber Optic Connectors

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Measurement/Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss, Typical</td>
<td>0.7 dB, multimode, @ 850 nm or 1300nm</td>
</tr>
<tr>
<td></td>
<td>0.7 dB, single mode, @ 1310nm or 1550nm</td>
</tr>
<tr>
<td>Return Loss</td>
<td>≥-34.0 dB unmated @ 1310nm or 1550nm</td>
</tr>
<tr>
<td>Mating Durability</td>
<td>3,000 cycles</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-46°C to 71°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-57°C to 85°C</td>
</tr>
<tr>
<td>Cyclic Temperature</td>
<td>-55°C/85°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>95% RH</td>
</tr>
<tr>
<td>Immersion</td>
<td>15m, water (plug &amp; receptacle)</td>
</tr>
<tr>
<td>Shock</td>
<td>EIA/TIA 455-14, test condition A</td>
</tr>
<tr>
<td>Impact</td>
<td>EIA/TIA 455-2, method C, service class: severe</td>
</tr>
<tr>
<td>Vibration</td>
<td>EIA/TIA 455-11, sinusoidal condition III (at 10g),</td>
</tr>
<tr>
<td></td>
<td>random condition VI (letter C) for 1.5 hours</td>
</tr>
<tr>
<td>Weight</td>
<td>Plug approx. 300g, receptacle approx. 100g</td>
</tr>
</tbody>
</table>

EB4H1000 Plug Assembly

EB4H1000 Plug Ordering Nomenclature

EB4H1000-[
  [MATERIAL]
  3 - BLACK ALUMINUM
  A - MARINE BRONZE
  B - 360 BRASS
  C - 303 STAINLESS
  F - 316 STAINLESS

  [# CHANNELS]
  2 - 2 CH
  4 - 4 CH

  [WAVELENGTH]
  1 - 850/1300 nm
  2 - 1310 nm
  3 - 1550 nm
  4 - 1310/1550 nm

  [CABLE]
  3 - 3-4.5mm
  5 - 4.5-6mm
  7 - 6-7.5mm

DUST CAP
BLK NYLON
TR 2-202 x 4 #22 DOUBLE LEAD THREAD
IN ACCORDANCE WITH ISO 2983 W/ BLUNT START

Φ1.75mm
CABLE SIZE

98°
25mm
MAX

3.3°
83mm
MAX

5.5°
140mm
MAX

Fiber Optic Solutions

www.fibersystems.com
EB4H8000 Receptacle Assembly

EB4H8000 Ordering Nomenclature

EB4H8200 Strain Relief Receptacle
EB4H6000 Flange Mount Strain Relief Receptacle

EB4H6000 Ordering Nomenclature

EB4H6200 Flange Mount Strain Relief Receptacle