The FC FUSION allows you to quickly and easily make field terminations with the performance you expect from Diamond-quality FC connectors. The key to this system is DIAMOND’s advanced "crocodile alberino" fusion field ferrule assembly. The ferrule assembly consists of a factory-terminated fiber endface, fiber stub, and integrated splice protection. The fiber endface is core-centered via Diamond’s well-known Active Core Alignment process and factory-polished to the company’s precise specifications. The FC FUSION is then field terminated via a low loss fusion splice using the new Diamond ZEUS D50 Fusion Field Termination Kit. The FC FUSION is available for SM and MM fiber (250µm, 600µm & 900µm) and cable (1.6-to-3.1 mm) in both 0° PC or 8° APC versions. Other fiber types can also be accommodated upon request.

**FEATURES AND BENEFITS**

- Simple, fast and reliable field termination*
  reduces operator error and cost per termination
- Outstanding optical performance
  consistent and repeatable low IL / high RL
- No polishing
  eliminates the need for costly consumables
  operator independent performance
- Fusion spliced pigtail performance and reliability without the cost and space associated with splice enclosures, trays and protectors.

**AVAILABLE AS**

- Connector set, (to be terminated with Diamond special equipment)

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th></th>
<th>MULTIMODE 0° PC</th>
<th>SINGLE MODE 0° PC</th>
<th>SINGLE MODE 8° APC</th>
<th>UNITS</th>
<th>TEST CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (IL)</td>
<td>typ. 0.2 max 0.5 dB</td>
<td>typ. 0.25 max 0.5 dB</td>
<td>typ. 0.25 max 0.5 dB IEC 61300-3-4; λ = 1300/1550nm</td>
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<tr>
<td>Return Loss (RL)</td>
<td>min. 40 dB</td>
<td>min. 50 dB</td>
<td>min. 70* dB</td>
<td>IEC 61300-3-6; λ = 1300/1550nm</td>
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<tr>
<td>Repeatability of IL</td>
<td>max. ≤0.1 dB</td>
<td>IEC 61300-2-2; λ = 1300/1550nm</td>
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<tr>
<td>Service life</td>
<td>1000 mate/demate cycles</td>
<td>According to field experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-25/+70°C</td>
<td>°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-25/+70°C</td>
<td>°C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Measured with high precision reflectometer
** May be further limited by cable specifications
CONNECTOR TYPES AND DIMENSIONS

FC Fusion connectors 900 µm - 3 mm boot style

Available types:
- FC Fusion PC  (Key Ø2.14 mm)
- FC Fusion APC  (Key Ø2 mm)
- FC Fusion APC  (Key Ø2.14 mm)

Ferrule material: Zirconia/copper-nickel alloy insert
External parts: Ni-plated brass/Plastic

ADAPTER TYPES AND DIMENSIONS

External parts: Ni-plated brass
Mating sleeve: Zirconia

FC mating adapter square flange

FC mating adapter hexagonal flange

FC mating adapter round flange

NOTE  Diamond's standard boot colors are as follows: Black for MM PC 50µm, Beige for MM PC 62.5µm, Blue for SM PC, and Green for SM APC. Other colors are available upon request.

ORDER INFORMATION

Please refer to the part numbers provided in the separate P/N list.
For other configurations, please contact your nearest local Diamond representative or fill in the contact form available on the www.diamond-fo.com website.
DIAMOND’s new ZEUS D50 Fusion Field Termination Kit provides all the tools and instructions necessary for high performance field terminations of DIAMOND’s Fusion E-2000®, F-3000®, SC, FC and ST™ connectors.

ORDER INFORMATION
Please refer to the part-specific ZEUS D50 Fusion Field Termination Kit datasheet.

BASE KIT
1. ZEUS D50 fusion splicer
2. Fiber cleaver
3. Stripping pliers
   - Soft bag
4. Holder left and right
5. Connector assembling tools
6. Holder for Alberino Crocodile