**DIAMOND**

**Fiber Optic Components**

**CABLE ASSEMBLIES AND ADAPTERS**

The F-3000® FUSION allows you to quickly and easily make field terminations with the performance you expect from Diamond-quality F-3000® connectors. The key to this system is DIAMOND’s advanced "crocodile alberino" 1.25mm 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 F-3000® FUSION is then field terminated via a low loss fusion splice using the new Diamond ZEUS D50 Fusion Field Termination Kit. The F-3000® FUSION is available for SM and MM fiber (250µm, 600µm and 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
- No need of glue
- 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
- F-3000® features:
  - Integrated protective caps and shutters for mechanical endface protection and eye-safety
  - Simplex and duplex version
  - Intermateable with a wide range of F-3000® components including, attenuators, hybrid mating adapters, transition adapters, etc.

**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>LIMITS</th>
<th>TEST CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insertion Loss (IL)</td>
<td>typ. 0.2 max 0.5</td>
<td>typ. 0.25 max 0.5</td>
<td>typ. 0.25 max 0.5</td>
<td>dB</td>
<td>IEC 61300-3-4; λ = 1300/1550nm</td>
</tr>
<tr>
<td>Return Loss (RL)</td>
<td>min. 40</td>
<td>min. 50</td>
<td>min. 70*</td>
<td>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</td>
<td></td>
<td></td>
<td>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></td>
<td></td>
<td></td>
<td>According to field experience</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-25/+70°C</td>
<td></td>
<td></td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-25/+70°C</td>
<td></td>
<td></td>
<td>°C</td>
<td></td>
</tr>
</tbody>
</table>

* Measured with high precision reflectometer
** May be further limited by cable specifications

**TEST CONDITIONSMULTIMODE**

0° PC

SINGLE MODE PC/APC

MULTIMODE PC

**F-3000® Fusion**

**Cable Assemblies and Adapters**

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F-3000® FUSION SIMPLEX TYPES AND DIMENSIONS

Connectors 600 µm - 3 mm boot style
Available types:  
F-3000® Fusion Simplex PC  
F-3000® Fusion Simplex APC
Ferrule material:  Zirconia/metal insert  
External parts:  Plastic

F-3000® s Simplex connectors 600 µm - 3 mm boot style
Available types:  
F-3000® s Simplex PC  
F-3000® s Simplex APC

F-3000® Simplex mating adapter
Material:  Plastic  
Mating sleeve:  Zirconia
For complete product description and ordering information, please refer to the part-specific F-3000® Simplex datasheet.

F-3000® Simplex mating adapter with screw fixing clip

F-3000® Simplex mating adapter with quick fixing clip

NOTE  As standard, Diamond uses colored connector bodies, cable boots and mating adapter housings to identify the fiber type (SM or MM 50/62.5µm) and ferrule polish (PC or APC).  
Diamond’s standard connector/boot/adaptor colors are as follows: Beige/ Black/Beige for MM PC 50µm, Beige/Beige/Beige for MM PC 62.5µm, Blue/Blue/Blue for SM PC, and Green/Green/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.
F-3000® FUSION DUPLEX TYPES AND DIMENSIONS

Connectors 600 μm - 3 mm boot style
Available types:  
F-3000® Fusion Duplex PC  
F-3000® Fusion Duplex APC
Ferrule material: Zirconia/metal insert  
External parts: Plastic

F-3000® Duplex mating adapter
Material: Plastic  
Mating sleeve: Zirconia
For complete product descriptions and ordering information, please refer to the part-specific F-3000® Duplex datasheet.

F-3000® Duplex mating adapter with screw fixing clip

F-3000® Duplex mating adapter with quick fixing clips

F-3000® Duplex mating adapter with 45° screw fixing clip
TERMINATION KIT
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