

DIAMOND

Fiber Optic Components

CABLE ASSEMBLIES AND ADAPTERS

DIAMOND F-3000™ fiber optic connectors enable a variety of applications, especially Fiber-to-the X (FTTX), including FTTC, FTTH, FTTD. These Duplex connectors combine the unique features of the F-3000™ Small-Form-Factor connectors with the market requirements for increased duplex integration. Through the use of a simple metallic bridge and an extended thumb-latch cover, the Simplex components can be upgraded to Duplex, offering the same renowned performance and stability as the single connector. The F-3000™ connector has been recently standardized as LF3 connector, thus clarifying and ensuring the mechanical compatibility of the F-3000™ connector with the LC adapter.

Similar to the F-3000™ Simplex version the F-3000™ Duplex features following highlights:

- ▶ Small-Form-Factor (SFF) design
- ▶ Ø 1.25 mm Diamond two-component ferrule
- ▶ Mating adapters with spring loaded metal shutters
- ▶ Connector integrated protective metal caps
- ▶ Compact RJ-45 similar footprint, push-pull design

The F-3000™ Duplex connectors are available in single mode, standard and low Insertion Loss, as well as multimode versions, and can be provided with 0° convex-polished (PC) or 8° angle-polished (APC) ferrules.

STANDARDS

- ▶ IEC 61 754-28 "Fiber Optic connector interfaces - Type LF3 connector family"
- ▶ EN 50377-16-1 Product specification: Part 16-1: Type LF3 APC simplex terminated on IEC 60793-2-50 category B1.1 and B1.3 single mode fibre with titanium composite ferrule for Category C
- ▶ IEC 61 754-20 "Fiber optic connector interfaces - Type LC connector family"
- ▶ TIA/EIA 604-10-A "Fiber optic intermateability standard - Type LC"

AVAILABLE AS

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

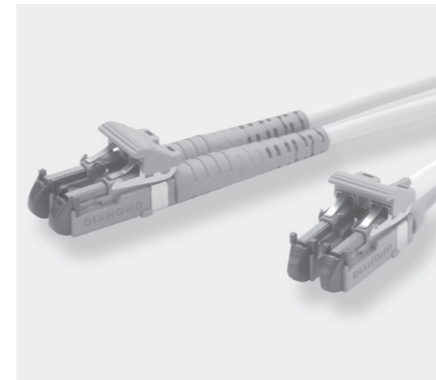
SPECIFICATIONS

| STANDARD | MULTIMODE 0° PC | SINGLE MODE 0° PC | SINGLE MODE 8° APC | UNITS | TEST CONDITIONS |
|-----------------------|--------------------|----------------------|----------------------|-------|--------------------------------|
| Insertion Loss (IL) | typ. 0.15 max. 0.4 | typ. 0.1 max. 0.4 | typ. 0.1 max. 0.4 | dB | IEC 61300-3-4; λ = 1300/1550nm |
| Return Loss (RL) | typ. 40 | min. 50 | min. 70* | dB | IEC 61300-3-6; λ = 1300/1550nm |
| Repeatability of IL | | max. ±0.1 | | dB | IEC 61300-2-2; λ = 1300/1550nm |
| LOW IL VERSION | | SINGLE MODE 0° PC | SINGLE MODE 8° APC | | |
| Insertion Loss (IL) | - | typ. < 0.1 max. 0.15 | typ. < 0.1 max. 0.15 | dB | IEC 61300-3-4; λ = 1300/1550nm |
| Return Loss (RL) | - | min. 50 | min. 85* | dB | IEC 61300-3-6; λ = 1300/1550nm |
| Operating temperature | | -40/+85** | | °C | |
| Storage temperature | | -40/+90** | | °C | |

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

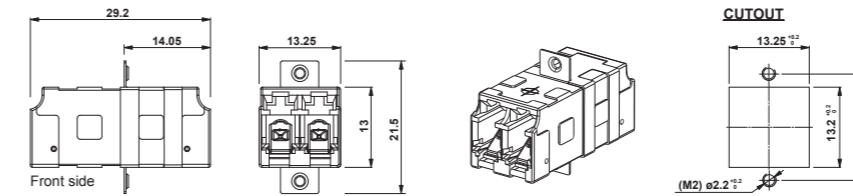
F-3000™ Duplex

SINGLE MODE PC/APC
 MULTIMODE PC

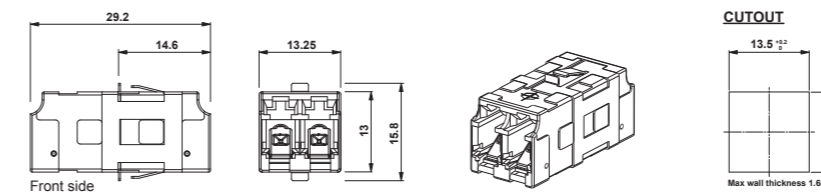


ADAPTER TYPES AND DIMENSIONS

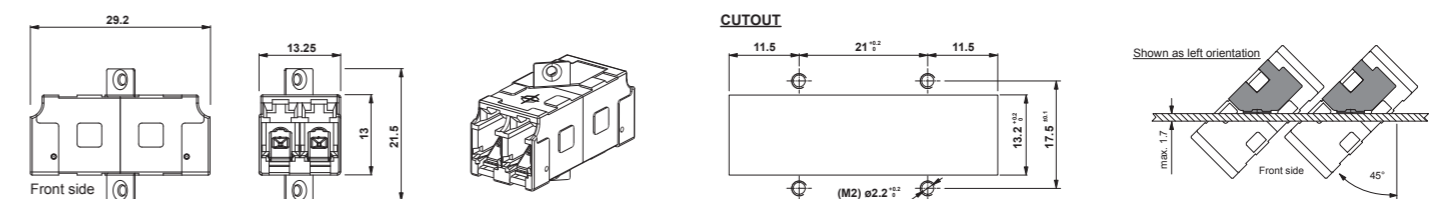
F-3000™ Duplex mating adapter with screw fixing clip



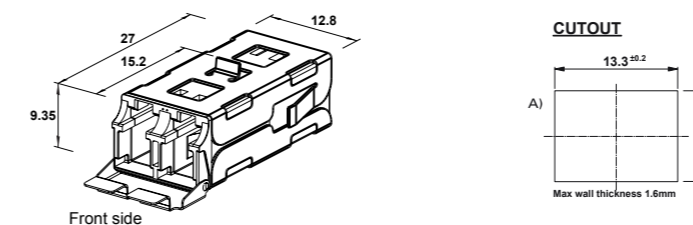
F-3000™ Duplex mating adapter with quick fixing clips



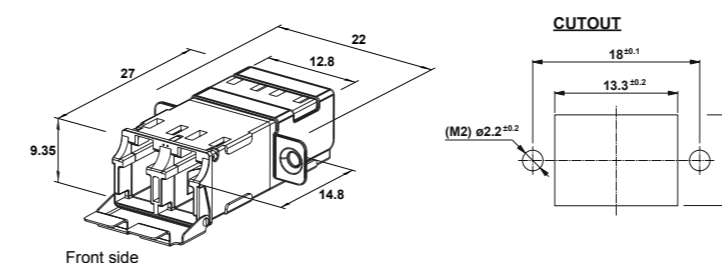
F-3000™ Duplex mating adapter with 45° screw fixing clip



F-3000™ Junior mating adapter with quick fixing clip (Typ B: for excellent stability within SC cutout)



F-3000™ Junior mating adapter with screw fixing clip



DIAMOND SA • Via dei Patrizi 5 • CH-6616 Losone • Switzerland
 Tel. +41 91 785 45 45 • Fax +41 91 785 45 00 • e-mail info@diamond-fo.com

www.diamond-fo.com

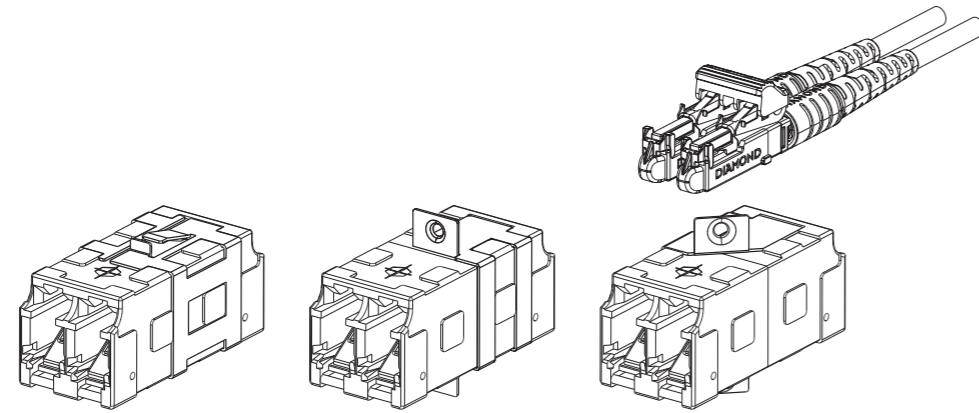
Specifications subject to change without notice

BDD 1950156 07_12

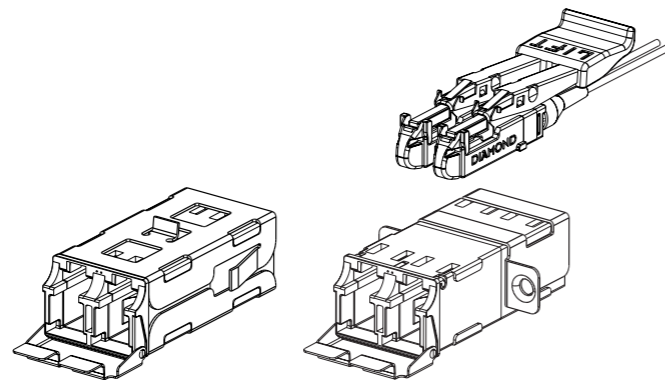
PRODUCT MODULARITY AS A TARGET ...

Thanks to its highly developed construction, the F-3000™ connector and their accessories can be presented in many different configurations, to provide solutions all the possible customer's requirements.

F-3000™ Standard Duplex Adapter and connector



F-3000™ Junior Duplex Adapter and F-3000™ LIFT connector



COLOR KEYING

The F-3000™ Junior system permits the user to specify the color of the mating adapter frame so that different line types, uses, destinations and points of origin, etc. can be readily identified.

The frame are available in twelve distinct colors:

- | | | |
|------------------|--------------------------|------------------------------|
| 1. Blue | 5. Orange (upon request) | 9. Grey |
| 2. Beige (White) | 6. Yellow | 10. Brown (upon request) |
| 3. Black | 7. Green | 11. Pink (upon request) |
| 4. Red | 8. Violet (upon request) | 12. Turquoise (upon request) |

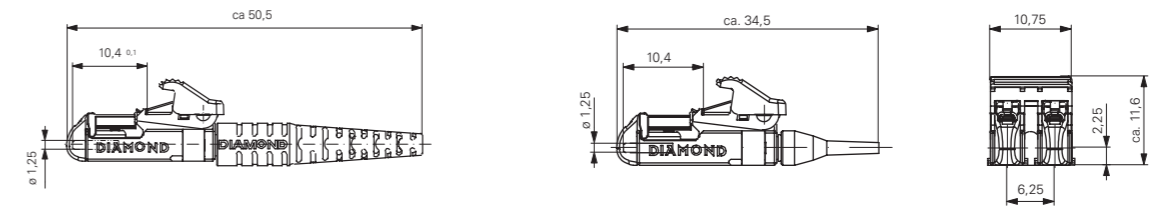
NOTE As standard, Diamond uses colored connector bodies, cable boots and mating adapter housings to identify the fiber type (SM or MM 50/62.5µm) and ferrule polish (PC or APC).
Diamond's standard **connector/boot/adaptor** colors are as follows: Beige/Black/Beige for MM PC 50µm, Beige/Beige/Beige for MM PC 62.5µm, Blue/Blue/Blue for SM PC, and Green/Green/Green for SM APC. Other colors are available upon request. Please refer to the Simplex, Duplex, Multiple fiber Assemblies order form for standard duplex channel identification.

CONNECTOR TYPES AND DIMENSIONS

F-3000™ Duplex connectors 900 µm - 3 mm boot style

Available types: **F-3000™ Duplex PC**
F-3000™ Duplex APC
F-3000™ Duplex APC Low IL

Ferrule material: Zirconia/metal insert
External parts: Plastic



F-3000™ s Duplex connectors 900 µm - 3 mm boot style

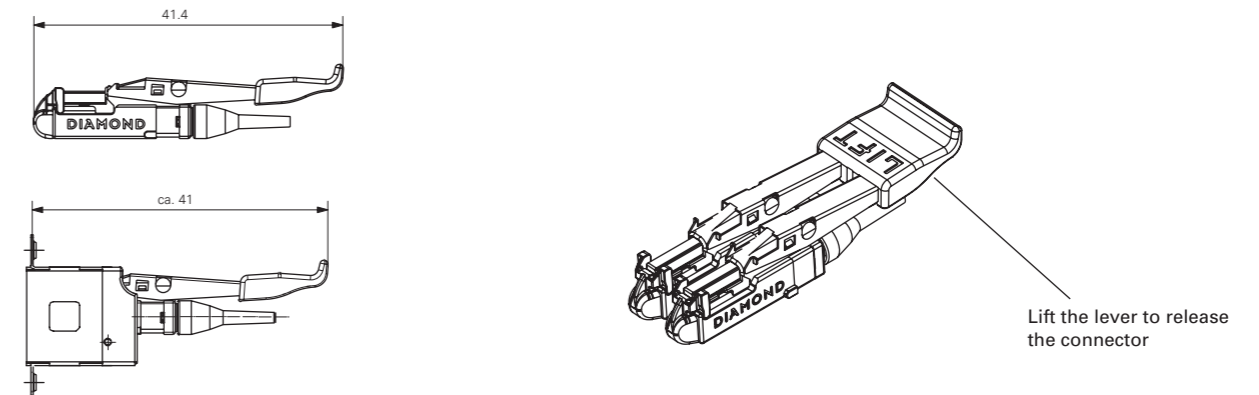
Available types: **F-3000™ s Duplex PC**
F-3000™ s Duplex APC
F-3000™ s Duplex APC Low IL



The new F-3000™ s without protection cap and bottom is a simplified version of the F-3000™ standard connector.

OPTION: LONG THUMB-LATCH

The ideal solution for special applications with difficult access



NOTES: - Cable ø 2.1 mm max.
- Please contact your local Diamond representative for additional information

ORDER INFORMATION

When ordering standard patchcords, mating adapters and fixing clips, please refer to the part numbers provided in the enclosed P/N list.

When ordering pigtails or cable assemblies, please refer to the **connector type description** in the Available types section, and fill in the Simplex, Duplex, Multiple fiber Assemblies order form according to **those** denominations.