

# DIAMOND

## Fiber optic components

### CABLE ASSEMBLIES AND ADAPTERS

The Fusion Crocodile® (SOC) solution allows for easy and fast on-site connector installation while maintaining the high quality standard of the of Diamond connectors. The key component for this is the sophisticated "Crocodile Alberino" 2.5 mm ferrule assembly for the connector types E-2000®, SC, ST, FC and the 1.25 mm variant for the F-3000® connector, which can be assembled in the field. The ferrule assembly consists of a mini-pigtail with integrated splice protection elements. The fiber end face is core-centered (ACA) by DIAMOND's well-known active fiber alignment process and polished under manufacturing conditions to strict factory specifications. The new FUSION is installed on site with the Fitel S179 Fusion Splicing Tool Kit. The high quality of the tool and ferrule ensures low insertion losses.

### FEATURES AND BENEFITS

- ▶ Simple, fast and reliable field installation
- ▶ Suitable for indoor and outdoor use
- ▶ Excellent optical properties
- ▶ Connector polished ex works
- ▶ Properties of a factory assembled connector

### Available Variants

Connector types	F-3000®, E-2000®, SC, ST, FC
Polish variants	APC 8°, PC 0°
Fiber types	Single mode OS2 G652.D, G657.A2, 9µm Multi mode OM1 62.5µm Multi mode OM3, OM4, 50µm
Cable and fiber compatibility	1.6mm – 3mm cable 250µm, 600µm, 900µm fibers Loose and tight fiber constructions
Mechanical strain	Crocodile with tape (indoor) Crocodile with two-component adhesive (outdoor)

### Fusion Connector Set Configurator



[https://docs.google.com/forms/d/e/1FAIpQLSe3mk2A\\_U\\_XII4r1ydJAOk1e8Pk2h2-CWoLcdXkIVCNNTGvhQ/viewform](https://docs.google.com/forms/d/e/1FAIpQLSe3mk2A_U_XII4r1ydJAOk1e8Pk2h2-CWoLcdXkIVCNNTGvhQ/viewform)

### SPECIFICATIONS

	MULTIMODE 0° PC	SINGLE MODE 0° PC	SINGLE MODE 8° APC***	UNIT	TEST CONDITIONS
Insertion loss (IL) 250µm - 900µm fibers	typ. 0.15 max 0.5	typ. 0.15 max 0.5	typ. 0.15 max 0.5	dB	IEC 61300-3-4; λ = 1300/1550nm
Insertion loss (IL) 1.6mm - 3mm cable	typ. 0.2 max 0.5	typ. 0.25 max 0.5	typ. 0.25 max 0.5	dB	IEC 61300-3-4; λ = 1300/1550nm
Reflection loss (RL)	min. 40	min. 50	min. 70*	dB	IEC 61300-3-6; λ = 1300/1550nm
Reproducibility IL	max. ±0.1				IEC 61300-2-2; λ = 1300/1550nm
Service life	1000 cycles of operation			°C	
Operating temperature	-25/+70**				
Storage temperature	-25/+70**				

\* Measured with precision reflectometer

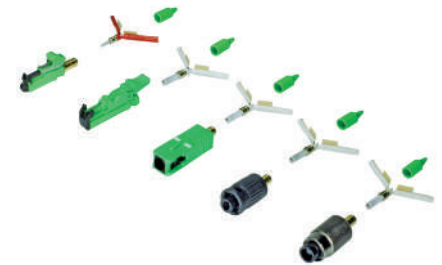
\*\* The temperature range of the cable used may limit the connector specifications

\*\*\* Excl. ST connector types

### SOC (Splice On Connector)

#### SPLICE ON CONNECTOR

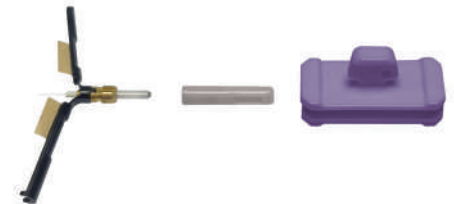
CONNECTOR TYPES: F-3000®, E-2000®, SC, ST, FC



Fusion Connector Sets



Fusion Crocodile



Fusion Crocodile 1.25 for F-3000® connector



Fusion Crocodile Assembly



SOC Splicing



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Specifications subject to change  
without notice

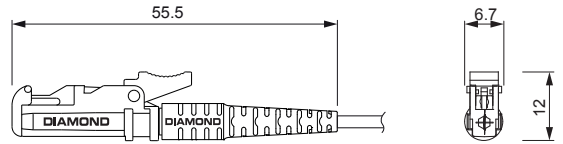
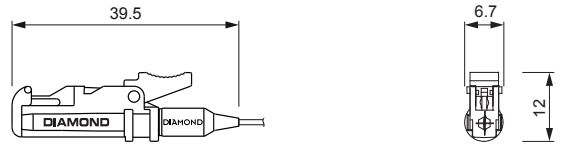
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**CONNECTOR TYPES AND DIMENSIONS**

E-2000® Fusion connector, 250 µm - 900 µm fibers,  
Bend protection type short or long

Versions: **E-2000® Fusion PC**  
**E-2000® Fusion APC**

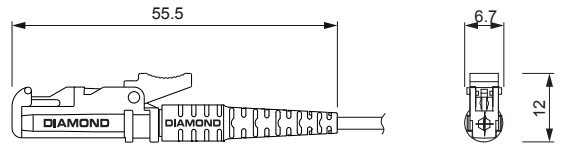
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



E-2000® Fusion Connector, 1.6 mm - 3 mm cable  
Bend protection type long

Versions: **E-2000® Fusion PC**  
**E-2000® Fusion APC**

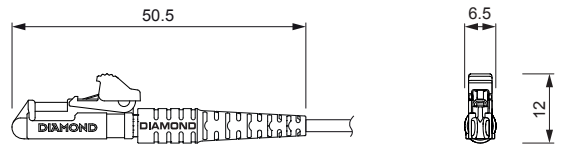
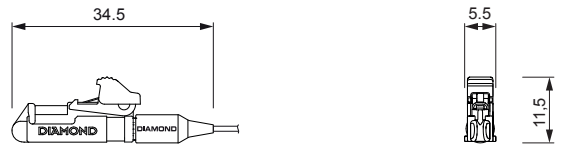
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



F-3000® Fusion connector, 250 µm - 900 µm fibers,  
Bend protection type short or long

Versions: **F-3000® Fusion PC**  
**F-3000® Fusion APC**

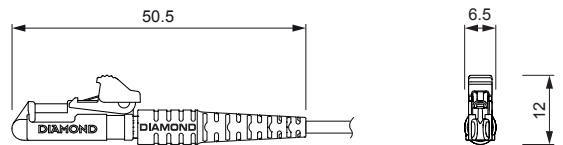
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



F-3000® Fusion connector, 1.6 mm - 3 mm cable  
Bend protection type long

Versions: **F-3000® Fusion PC**  
**F-3000® Fusion APC**

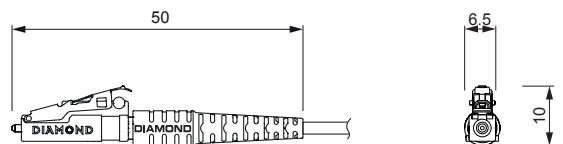
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



F-3000s® Fusion connector, 250 µm - 900 µm fibers,  
Bend protection type short or long

Versions: **F-3000s® Fusion PC**  
**F-3000s® Fusion APC**

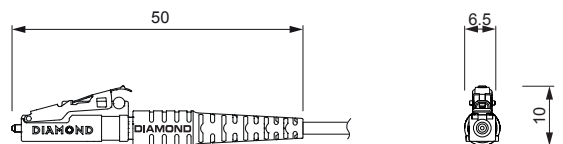
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



F-3000s® Fusion connector, 1.6 mm - 3 mm cable  
Bend protection type long

Versions: **F-3000s® Fusion PC**  
**F-3000s® Fusion APC**

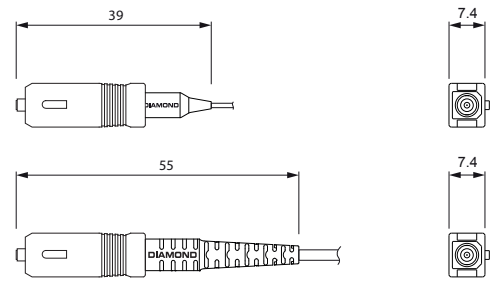
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



SC Fusion connector, 250 μm - 900 μm fibers,  
Bend protection type short or long

Versions: **SC Fusion PC**  
**SC Fusion APC**

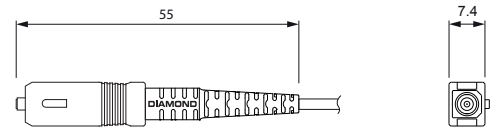
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



SC Fusion connector, 1.6 mm - 3 mm cable  
Bend protection type long

Versions: **SC Fusion PC**  
**SC Fusion APC**

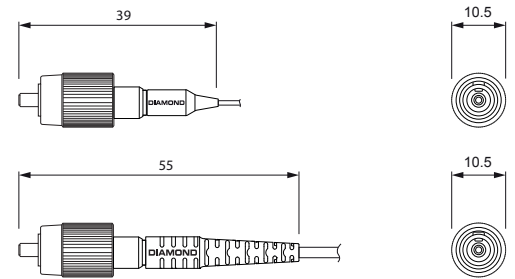
Ferrule material: Zirconia/metal insert  
Material outer parts: Plastic



FC Fusion connector, 250 μm - 900 μm fibers,  
Bend protection type short or long

Versions: **FC Fusion PC (anti-twist protection ø2.14 mm)**  
**FC Fusion APC (anti-twist protection ø2 mm)**  
**FC Fusion APC (anti-twist protection ø2.14 mm)**

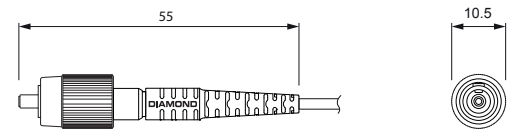
Ferrule material: Zirconia/nickel silver insert  
Material outer parts: Nickel-plated brass/plastic



FC Fusion connector, 1.6 mm - 3 mm cable  
Bend protection type long

Versions: **FC Fusion PC (anti-twist protection ø2.14 mm)**  
**FC Fusion APC (anti-twist protection ø2 mm)**  
**FC Fusion APC (anti-twist protection ø2.14 mm)**

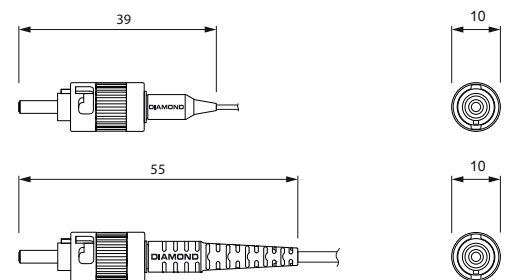
Ferrule material: Zirconia/metal insert  
Material outer parts: Nickel-plated brass/plastic



ST Fusion connector, 250 μm - 900 μm fibers,  
Bend protection type short or long

Versions: **ST Fusion PC**

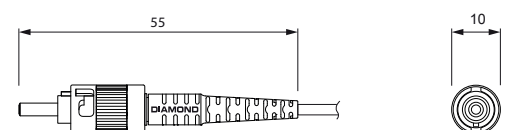
Ferrule material: Zirconia/nickel silver insert  
Material outer parts: Plastic, black



ST Fusion connector, 1.6 mm - 3 mm cable  
Bend protection type long

Versions: **ST Fusion PC**


Ferrule material: Zirconia/nickel silver insert  
Material outer parts: Plastic, black



## SPLICING TOOLS

Art. 1091232		Fitel S179A Core Alignment Fusion Splicer Kit Includes: High-Precision Cleaver S326A Pair: Fiber holder 250um left & right Pair: Fiber holder 500um left & right (for 500-900um fiber)
1091031		Power cord 2m, C5, IEC to CEE 7/4 Schuko 2.5 A
1091400		Fitel FS crocodile holder for S179A splicer
1090845		250-900um Tight Buffered crocodile assembly jig (working stage for closing the crocodile)  Incl. holder for 250-900µm fibre 

## ADDITIONAL TOOLS FOR CABLE

000-006-696C		Holder for 1.8-3.0 mm tight buffered/loose tube cable (for the working stage)
000-006-946C		Cable/fibre holder for loose & tight buffered. Kabel/Faser Halter für Hohllader & Festader Kabel
IP		Cable holder spacer (to be inserted in the splicer on the right hand side under the holder)
1056892		Crimping pliers FTTH
1040186		Stripping pliers Jonard 3 holes
1020713		Cutter Miller FO-kevlar
1066753		Protection Sleeve Insertion Tool





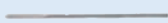
## CONNECTOR BODY ASSEMBLY TOOLS

1056105		Assembling Tool F-3000®
1056105		Assembling Tool E-2000®
1057672		Assembling Tool SC
1062877		Assembling Tool FC
1062834		Assembling Tool ST

## GENERAL TOOLS

1048040		Tool case 335mm
1071976		Tube stripper 3, 0-5, 5mm
1020537		Line L = 150mm
1020588		Tweezers 120mm 4 3/4 Typ 00
1900109		Thin felt pen black
1025385		Alcohol dispenser 2.4dl
1073654		Sticklers TM cleaner. The product is compliant with flight regulations (non-flammable)
1020822		Precision Kim wipes 7552 11x21cm
1086287		V-groove cleaning brush
1086287		Cleaning swab for v-groove & various
1020725		Hex keys SW 0.71/2
1020640		Watchmaker magnifying glass no. 2 1/2"
1073166		Hand air pump
1023358		2 pin universal travel adapter Skicross
1750260		Box 43x240x195mm

## CONSUMABLES FOR HE FUSION

1047068		Adhesive for fiber protection (HYSOL 608 4g) + Mixing stick
1020616		2 ml syringe (Enough for 5 glue packs. Additional syringes must be ordered.)
1020622		Needle EFD 5118 for 2 ml syringe
1020927		Closing strips
1020681		Glue mixing plate
1020358		Mixing sticks