

# DIAMOND

## Fiber Optic Components

### CABLE ASSEMBLIES AND ADAPTERS

#### DESCRIPTION

Diamond SC push-pull connectors are available in simplex and duplex version in SM PC/APC and MM PC.

These connectors are manufactured with our patented two-part ferrule and "Active Core Alignment" (ACA) technology aiming to reduce the insertion loss values by minimizing fiber-to-fiber eccentricity.

Diamond SC connectors are available as terminated connectors, Splice On Connectors (SOC) and connector set to be terminated with Diamond special equipment.

Further available technologies: PM, PZ, VIS/NIR, Low wavelengths, OLiD, and fusion.

#### SPECIFICATIONS FOR STANDARD VERSION

	MULTIMODE 0° PC	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UNITS	TEST CONDITIONS
Insertion Loss (IL)	typ. 0.2 max. 0.4	typ. 0.2 max. 0.4	typ. 0.2 max. 0.4	dB	IEC 61300-3-4; $\lambda = 1300/1550\text{nm}$
Return loss (RL)	typ 40	typ 50	min. 70*	dB	IEC 61300-3-6; $\lambda = 1300/1550\text{nm}$
Repeatability of IL	max $\pm 0.1$			dB	IEC 61300-2-2; $\lambda = 1300/1550\text{nm}$
Service life	1000 mate/demate cycle			-	According to field experience
Operating temperature	-40/+85**			°C	
Storage temperature	-40/+90**			°C	

\* Measured with high precision reflectometer

\*\* May be further limited by cable specifications

#### APPLICATIONS

- ▶ Telecommunications, CATV, LAN, MAN, WAN, Test & Measurement, Industry, Medical, Sensors

#### STANDARDS

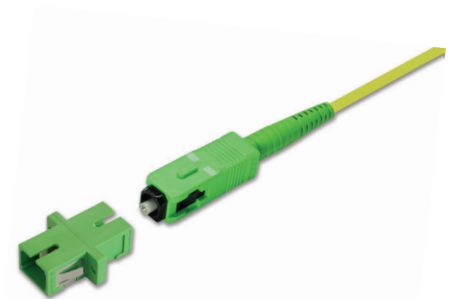
- ▶ IEC 61 754-4 "Fiber optic interfaces - Type SC connector family"
- ▶ TIA/EIA 604-3-A "Fiber optic intermateability standard - Type SC"

#### AVAILABLE AS

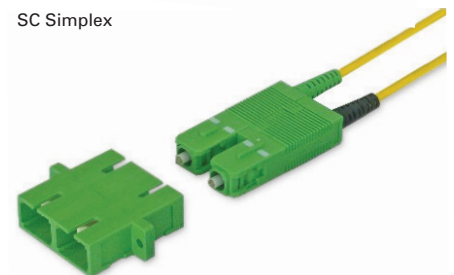
- ▶ Terminated connector
- ▶ Connector set, (to be terminated with Diamond special equipment)
- ▶ Splice On Connectors to be terminated with DIAMOND ZEUS D50 Fusion field termination kit. For more information please refer to the part-specific ZEUS D50 Fusion Field Termination Kit datasheet.

### SC Simplex & Duplex

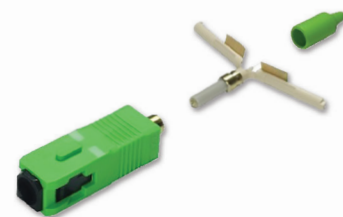
SINGLE MODE PC/APC  
MULTIMODE PC



SC Simplex



SC Duplex



SC Splice On Connector (SOC)



ZEUS D50 Fusion splicer



DIAMOND SA | Via dei Patrizi 5 | CH-6616 Losone - Switzerland  
Tel. +41 58 307 45 45 | e-mail info@diamond-fo.com

[www.diamond-fo.com](http://www.diamond-fo.com)

Specifications subject to change  
without notice

BDD 1951830 01\_18

## DUPLEX

DIAMOND SC Duplex connectors conform to the requirements of IEC proposal for use in Fiber Channel Standard (FCS) duplex links. They are available in multimode PC and single mode PC/APC versions.

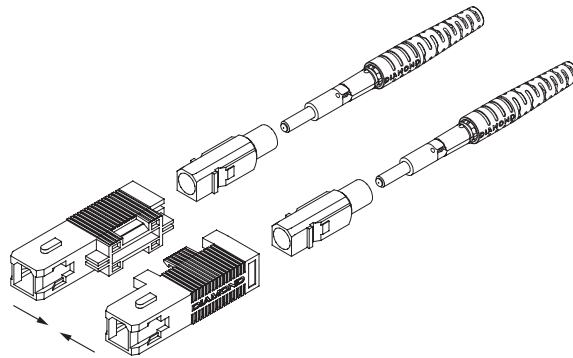
These connectors feature unique outer shells which snap firmly together, but which are easily disconnected with light finger pressure. This allows:

- simplified handling, for example when a single line must be connected momentarily to a piece of test gear configured to handle only one channel
- unification of the patch cable on stock, having access to different SC duplex and/or SC single channel interfaces
- the flexibility to build FCS connectors with different keys for single mode or multimode applications with a low number of shells.

DIAMOND SC Duplex connectors feature DIAMOND's new SNAP-FIT construction.

This unique, patented construction is built around a common internal ferrule assembly, onto which popular connector body styles are snap-fitted. The SNAP-FIT approach allows suppliers to produce and stock assemblies with confidence, as the high-value connector is not committed.

Benefits include substantially reduced lead times, reduced capital investment (ie: only one set of termination equipment required) and a common assembly process to ensure low rejects.



## DRAWINGS AND DIMENSIONS

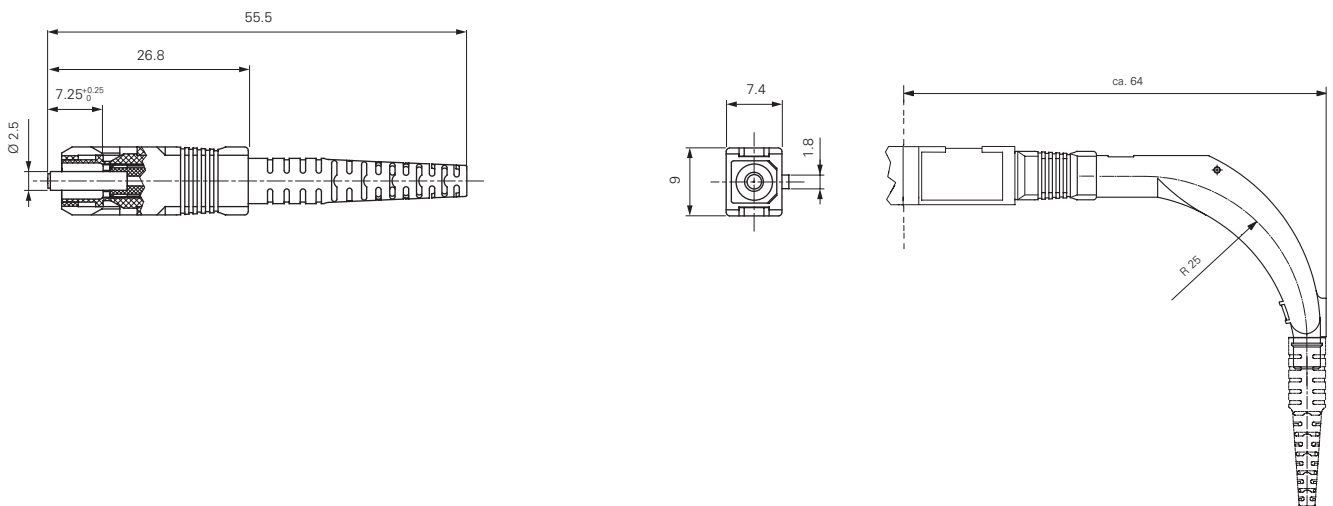
### SC SIMPLEX AND DUPLEX CONNECTORS

SC Simplex connectors 900µm - 3 mm boot style

Available types: **SC Simplex PC**  
**SC Simplex APC**

Ferrule material: Zirconia/metal insert

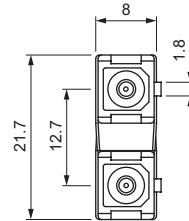
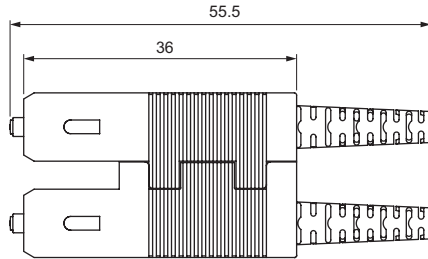
External parts: Plastic



SC Duplex connectors 900 µm - 3 mm boot style

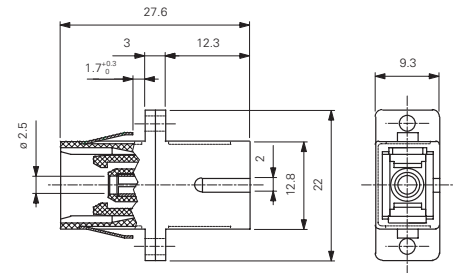
Available types: **SC Duplex PC**  
**SC Duplex APC**

Ferrule material: Zirconia/metal insert  
External parts: Plastic

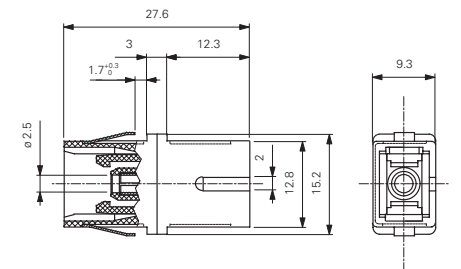


SC SIMPLEX AND DUPLEX MATING ADAPTERS

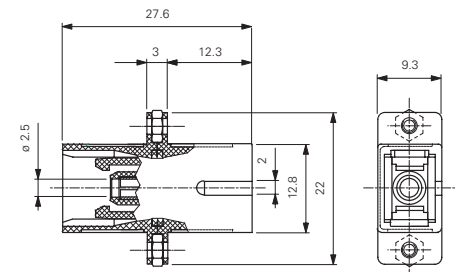
SC Simplex mating adapter screw and clip fixing type



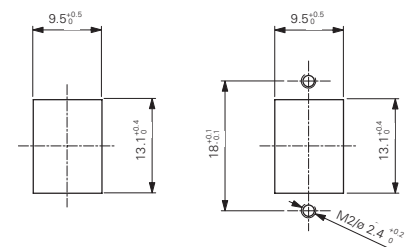
Small SC Simplex mating adapter with quick fixing clip



SC Simplex mating adapter with screws-nut fixation

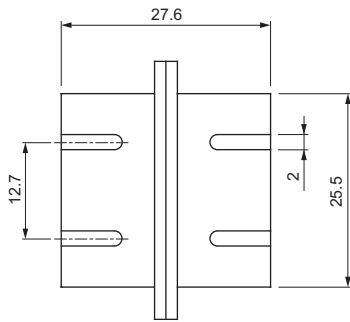


CUTOUT DIMENSIONS

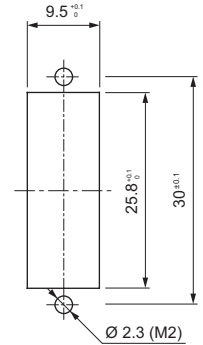
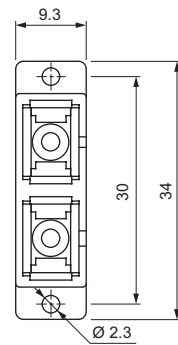


SC Duplex mating adapter

External parts: Plastic  
 Mating sleeve: Zirconia



CUTOUT DIMENSIONS



**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](http://www.diamond-fo.com) website.