

# DIAMOND

## Fiber Optic Components

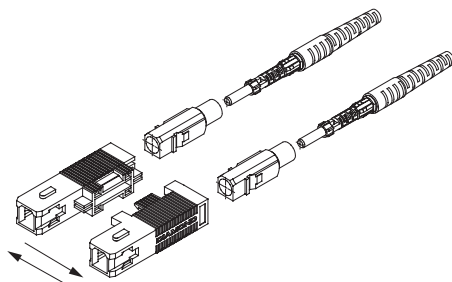
### CABLE ASSEMBLIES AND ADAPTERS

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.



### 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)

### SPECIFICATIONS

	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	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

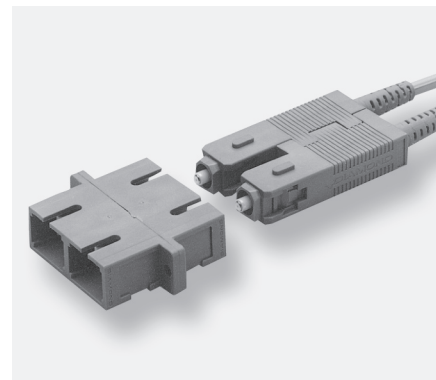


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### SC Duplex

SINGLE MODE PC/APC  
MULTIMODE PC



Specifications subject to change  
without notice

BDD 1950065 048

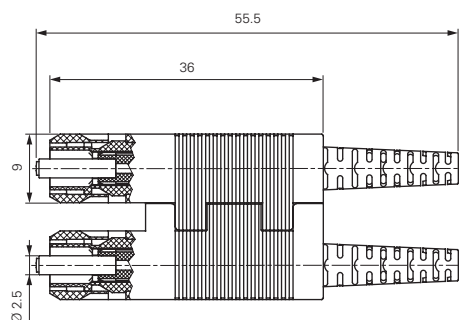
## CONNECTOR TYPES AND DIMENSIONS

SC Duplex connectors 900  $\mu\text{m}$  - 3 mm boot style

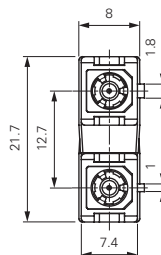
Available types: **SC Duplex PC**  
**SC Duplex APC**

Ferrule material: Zirconia/metal insert

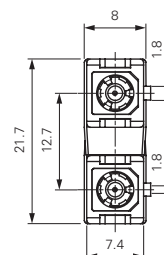
External parts: Plastic



Dimensions for  
SM PC & APC



Dimensions for  
MM

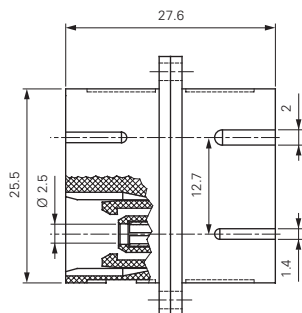


## ADAPTER TYPES AND DIMENSIONS

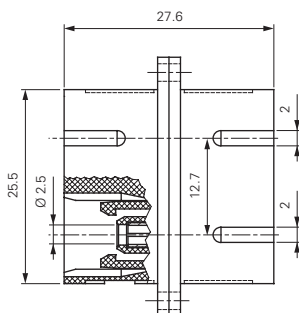
SC Duplex mating adapter

External parts: Plastic  
Mating sleeve: Zirconia

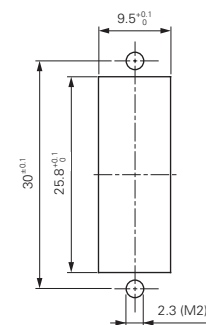
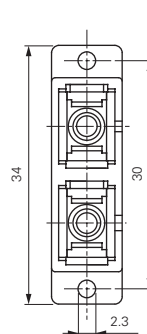
Dimensions for  
SM PC & APC



Dimensions for  
MM



CUTOUT DIMENSIONS



**NOTES** - As standard, Diamond uses colored connector bodies, cable boots and mating adapter housings to identify the fiber type (SM or MM 50/62.5 $\mu\text{m}$ ) and ferrule polish (PC or APC).

Diamond's standard **connector/boot/adaptor** colors are as follows: Beige/ Black/Beige for MM PC 50 $\mu\text{m}$ , Beige/Beige/Beige for MM PC 62.5 $\mu\text{m}$ , Blue/Blue/Blue for SM PC, and Green/Green/Green for SM APC. Other colors are available upon request.

- For hybrid mating adapters which permits mating of SC Duplex plugs to ST<sup>™</sup>-style connectors, see the Standard hybrid mating adapter data sheet.

- Please refer to the Simplex, Duplex Multiple fiber Assemblies order form for standard Duplex channel identification.

## ORDER INFORMATION

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

When ordering pigtailed 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.