

# Sales Catalog of HNK Telecommunication Products

## Fiber Optic Connector

### Fiber Optic Connector Series

Fiber Optic Connectors are an important component in a fiber optic network; they are used on a fiber optic patch cord or pigtail with an adaptor to make connections. In order to achieve accurate and precise connections of the fiber ends, very high quality ceramic components are used. Fiber optic connectors made with precision and high quality ceramic components provide a high reliability connection when used with the various adapters. We make sure that every connector that leaves our production is tested and performs as per the international standards.



Fiber Optic Connector

#### Standards Compliance

- UL-V0 flammability rating
- TIA/EIA-568-C.3 (Optical Fiber Cabling Components Standard)
- ANSI/TIA/EIA-455B (Standard Test Procedure for Standard Fiber Optic Fibers, Cables, Connecting & Terminating Devices, and Other Components)
- IPC-8497-1 (Cleaning Methods & Contamination Assessment for Optical Assembly)

#### Features

- High quality ceramic components and Material
- End-face geometry requirement complies to Telcordia GR-326-CORE
- 100% tested on optical performance (Insertion Loss & Return Loss)
- Simplex, duplex and higher core densities
- 900 micron, 2mm, 3mm cable applications

#### Design & Materials

Connector Ferrule	Ceramic
Alignment Sleeve	Ceramic
Connector Body	UL 94V-0 rated Thermoplastic to meet standard flammability ratings
Crimp Insert/Crimp Tube	Nickel-Plated Brass/Thermoplastic Elastomer Polymer
Dust Cap	Nylon or PVC
Strain Relief Boot	Flame retardant (UL-Rated 94-V0) polymer
Connector Style	SC, FC, ST, LC, MTRJ,
Polish	PC, UPC, APC
Capillary Diameter Tolerance	126 ± 0.5µm(Single Mode), 127 ± 0.5µm (Multimode)
Ferrule Diameter	2.5 ± 0.001mm(FC,SC,ST),1.25± 0.001mm (LC)

#### Environmental & Mechanical Data

Operating Temperature	-40 to +85° C
Storage Temperature	-40 to +85° C
Temperature Cycling (61300-2-18)	-40 to +75° C, 40 cycles=0.2dB change
High Temperature (61300-2-18)	70° c for 96Hrs, <0.4dB change
Damp Heat(61300-2-19)	40° C at 93%RH for 96 Hrs, <0.4dB change
Vibration-Mated Pair (61300-2-1)	10-55Hz, 1.5mm P to P <0.2dB change
Mating Durability (61300-2-2)	500 Mating Cycles, clean every 25, <0.2dB change

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### Optical Performance Data

Item	Single mode			Multimode		
	PC	UPC	APC	62.5/125	50/125	50/125 10G
Insert Loss/connector (single Fiber)	0.3dB Max. (0.2dB typ.)			0.3dB Max. (0.2dB typ.)		
Return Loss	≥45 dB	≥50 dB	≥60 dB	N.A		
Insert Loss/MTRJ Connector	0.5dB Max. (0.45dB typ.)			0.5dB Max. (0.45dB typ.)		
Pull Strength	≥98N			≥98N		

### Ordering Information

Using the available configurations amend/create product codes using the formula below.

Part Number: **SCN-AA-BB-CD**

### Ordering Guide

AA	BB	C	D
Connector Type	Connector Boots diameter	Fiber count	Mode
FP,SP,SA,LP	20=2.0mm 30=3.0mm 09=0.9mm	SX=Simplex DX=Duplex	SM=Singlemode PC MM=Multimode PC APC=Singlemode APC

### Connector Type Code

FP	FC/PC, FC/UPC	FA	FC/APC	MU	MU
SP	SC/PC, SC/UPC	SA	SC/APC	MT	MTRJ
TP	ST/PC, ST/UPC	TA	ST/APC	DN	DIN
LP	LC/PC, LC/UPC	LA	LC/APC	E2	E2000

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### FC Fiber Optic Connector

FC Fiber Optic Connector is comprised of a Nickel plated Brass body and a Ceramic ferrule/spring/crimp barrel assembly plus a crimp over sleeve and rubber boot. This connector has a screw thread fitting into the adaptor to provide a secure connection and is suitable for 900µm, 2-3mm cable. The connector is precision made and manufactured to demanding specifications. The combination of a Ceramic ferrule with precision Nickel plated Brass housing provides consistent long-term mechanical and optical performance. The FC connector is available in single mode UPC and APC versions as well as multimode.



### Standards Compliance

Compliant with IEC 61754-13 & CECC 86 115-801 standards.  
RoHS, REACH SvHC compliant

### Applications

Telecommunications market, where long single mode optical fiber cables can run upwards of 50km. In these extreme situations the connector needs to have extremely low losses and accurate geometry.  
CATV, LAN, MAN, WAN, Test & Measurement, Industry, Medical and Sensors.

### Specifications

Ferrule Diameter	2.5mm
Coupling Type	Screw thread fitting
2mm or 3mm Boot Color	Black/Green
900µm Boot Color	Black/Green
Shell Connector versions available for	2mm, 3mm Cable, 900µm Buffered Fiber
Shell Tensile Strength Cable retention	>50N for 2 mm boot versions
	>98N for 3mm & 0.9mm

### Ordering Sample

Part Number	Description
<b>SCN-FP30SXMM</b>	FC/PC 3.0mm Simplex Multimode Fiber Optic Connector.
<b>SCN-FA09SXSM</b>	FC/APC 0.9mm Simplex Singlemode Fiber Optic Connector.