

## Datasheet

# Single Mode Simplex Fibre Optic Connector

RS Stock number 536-8092



## Description

The FC connector is used extensively in the telecommunications market, where long singlemode optical fibre cables can run upwards of 50km. In these extreme situations the connector needs to have extremely low loss and accurate geometry.

The optical fibre connector comprises of nickel plated brass body and ceramic ferrule / spring/ crimp barrel assembly plus crimp over sleeve and rubber boot. These connectors are suitable for 900um and 2 and 3mm cables. The connector is precision made and manufactured to demanding specifications. The combination of a ceramic ferrule and a precision nickel plated brass housing provides consistent long-term mechanical and optical performance.

The FC connector is available in singlemode PC and APC versions as well as multimode.



## Specification

### Description

The FC connector is a widely used connector. It can be seen in every area of the communications environment, from a telecoms distribution room to a local area network closet the FC has set the standard for optical fibre connectors.

The Optronics FC connectors are manufactured using the highest quality components. The connectors exceeds all areas of standards covering optical fibre connectors.

### Versions Available:

2mm Patch  
3mm Patch  
900 µm

### Termination Procedures

Prep cable end, Epoxy-Crimp-Polish

### Product Packaging

Standard packaging: 100pcs Bulk packed  
Special packaging available by request

### Colours

900 µm Boot, Blue, Black  
2 and 3 mm Boot, Blue, Black

### Intermateability

Optically and mechanically compatible with all equivalent connectors.  
Compliant with IEC 61754-13.

### Optical Performance Singlemode

Insertion loss: Max. 0.3 dB Typical 0.2 dB

Return Loss: UPC > 50dB Typical 55 dB  
APC > 60dB Typical 65 dB

### Multimode

Insertion loss: Max. 0.3 dB Typical 0.12dB  
(IEC 874-1 method)

### Mechanical

Capillary diameter tolerance:  
SM-126 ±0.5µm  
MM-127 =/- 0.5µm  
Ferrule Diameter: 2.5mm ± .001  
Pre-radiused, PC-end finish for Physical Contact  
ferrule to ferrule. R 10 to 25mm

Tensile Strength Cable retention: >50 N  
(2 & 3mm boot versions only)

### Vibration (Mated Pair):

(IEC 61300-2-1)  
10-55 Hz, 1.5mm P to P  
=0.3dB Change

### Mating Durability:

(IEC 61300-2-2)  
1000 mating cycles  
Clean every 25  
< 0.2 dB Change

### High Temperature:

(IEC 61300-2-18)  
75°C for 96 hours  
=0.2dB Change

### Damp Heat:

(IEC 61300-2-19)  
60°C at 95% RH, 96 hours  
=0.2dB Change

### Temperature Cycling

(IEC 61300-2-48)  
-40 to +75°C, 40 cycles  
=0.2dB Change

### Operating Temperature

-40°C to +85°C