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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.

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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 μ m

Termination Procedures

Prep cable end, Epoxy-Crimp-Polish

Product Packaging

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

Colours

900 μ m 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 \pm 0.5 μ m

MM—127 \approx /- 0.5 μ m

Ferrule Diameter: 2.5mm \pm .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
 \approx 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
 \approx 0.2dB Change

Damp Heat:

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

Temperature Cycling

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

Operating Temperature

-40°C to +85°C