

The RADIALL range of FC/PC connectors enables **low reflectance** and **low insertion** loss terminations to be manufactured for today's high performance singlemode transmission systems.

- FC/PC type IEC 874-7 / CECC BS EN 186110
- Zirconia ceramic alignment sleeve
- Screw thread coupling
- Floating ferrule
- Keyed plug alignment
- Epoxy polish termination
- Both "multipart" and "monobloc" versions are available
- For singlemode and multimode applications

PERFORMANCE CHARACTERISTICS

Optical

The optical performance depends on the fibre / cable construction and the method of termination (hand or machine polish). Insertion loss figures are stated as worst case results from hand polishing both multipart and monobloc connectors as per termination instructions and RADIALL tooling.

- Typical insertion loss : 0.2 dB ($\lambda = 1300$ nm)
- Standard deviation : 0.1 dB (IEC 874-1, cha. 4.4.7 method 7)
- Return loss : Super polish > 40 dB
 Ultra polish > 50 dB

The return loss figures quoted are available on pre-terminated leads from our production facility. Typical return loss achievable using hand polishing technique is 30 dB.

Mechanical

- Endurance : 1000 matings (IEC 874-1 Sect 4.5.32)
- Cable retention : 150 N max (BT CW 1552 Sect 6.2.4)
- Vibrations : 10-500 Hz (IEC 874-1 Sect 4.5.1)
- Climatic category : 20/80/4 (Bellcore TR-NWT 000 326 Sect 5.4.1.2)

"MULTIPART" FCPC CONNECTOR

The RADIALL multipart FC/PC connector manufactured for use with both multimode and singlemode ferrules can be assembled before or after the polishing process. A six position adjustable key is used to optimise the insertion loss of the connector.

The connector body and optical ferrule must be ordered separately.

Connector body

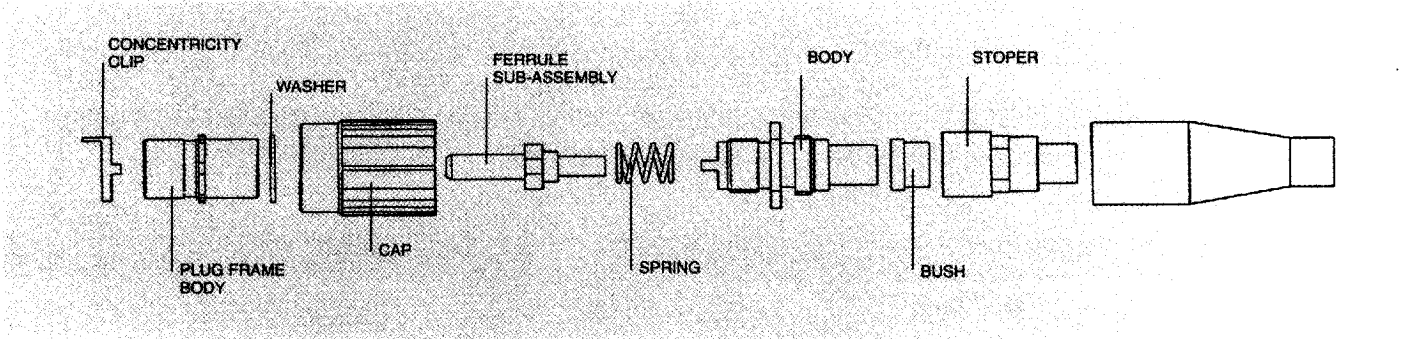
DESCRIPTION	Part number (single item)	Part number (bulkpack 100)
connector body FC/PC 0.9 mm fibre	F 711 050 000	F 711 050 200
connector body FC/PC 2.5 mm cable	F 711 051 000	F 711 051 200
connector body FC/PC 3 mm cable	F 711 052 000	F 711 052 200

The bulk packed product is supplied in a nine compartment tray allowing for immediate issue to the operators work centre without time being wasted in counting or opening packaging.

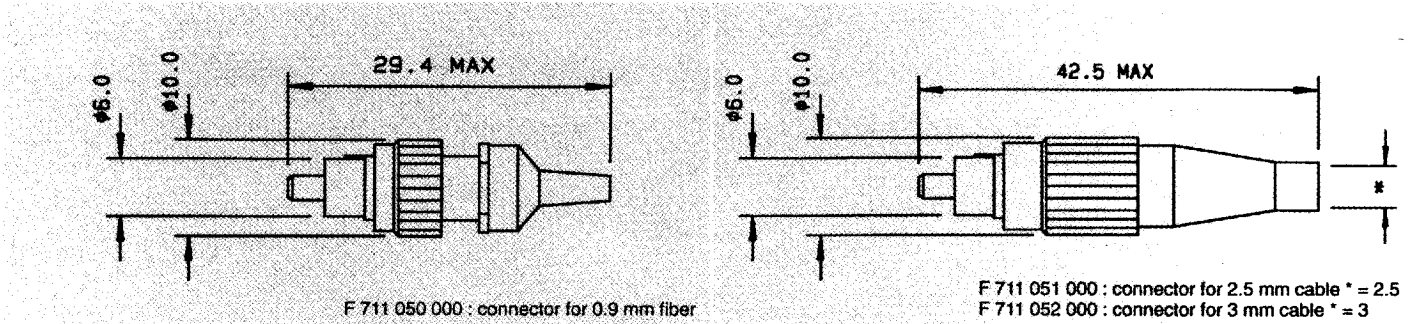
FC/PC optical ferrule

Four ferrule sizes are available allowing the customers to optimise the performance of the termination by selecting the correct ferrule for the exact fibre size being used. All the ferrules are 20 mm pre-radius zirconia ceramic held into a nickel plated brass ferrule carriage. This ferrule carriage has a four slot flange allowing it to be used on SC and FC connectors.

DESCRIPTION	MODE	PART NUMBER
ferrule assembly FC/SC – 125 µm	Single	F 711 001 705
ferrule assembly FC/SC – 126 µm	Single	F 711 001 706
ferrule assembly FC/SC – 127 µm	Single	F 711 001 707
ferrule assembly FC/SC – 128 µm	Single / Multi	F 711 001 708



DIMENSIONS (mm)



F 711 050 000 : connector for 0.9 mm fiber

F 711 051 000 : connector for 2.5 mm cable * = 2.5
F 711 052 000 : connector for 3 mm cable * = 3

"MONOBLOC" FC/PC CONNECTOR

The RADIAL "MONOBLOC FC/PC" connector is a fully assembled connector, including the specified optical ferrule.

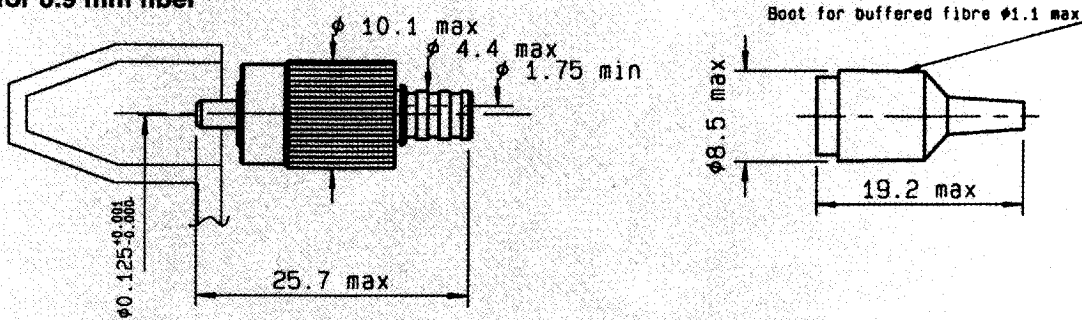
Cable retention is provided by a standard crimp on the aramid yarn, greatly reducing the termination time. As per the "beST" connector the "MONOBLOC" FC/PC features a fully floating ferrule protecting the system from signal loss due to tensile or rotational strain.

The optimisation key can be removed if the initial insertion loss readings are not to the required specification and rotated to one of six positions as per the "multipart" FC/PC connector. The optical ferrules are 20 mm pre-radius zirconia ceramic.

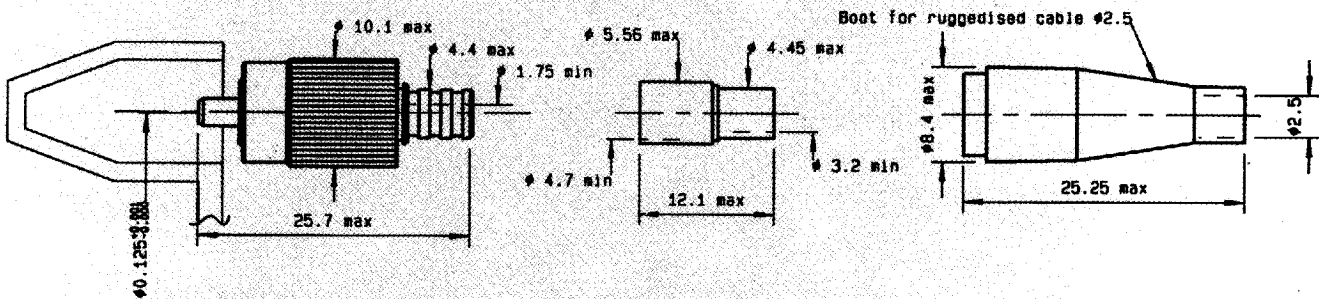
Optical ferrule		FC/PC connector for 0.9 mm buffered fiber		FC/PC connector for 2.5 mm cable		FC/PC connector for 3 mm cable	
Size	Mode	Single item	Bulkpack (100)	Single item	Bulkpack (100)	Single item	Bulkpack (100)
125 μ	single	F 711 070 705	F 711 070 201	F 711 073 705	F 711 073 201	F 711 071 705	F 711 071 201
126 μ	single	F 711 070 706	F 711 070 200	F 711 073 706	F 711 073 200	F 711 071 706	F 711 071 200
127 μ	single	F 711 070 707	F 711 070 202	F 711 073 707	F 711 073 202	F 711 071 707	F 711 071 202
128 μ	single/multi	F 711 102 000	F 711 102 200	F 711 101 100	F 711 101 200	F 711 100 000	F 711 100 200

DIMENSIONS (mm)

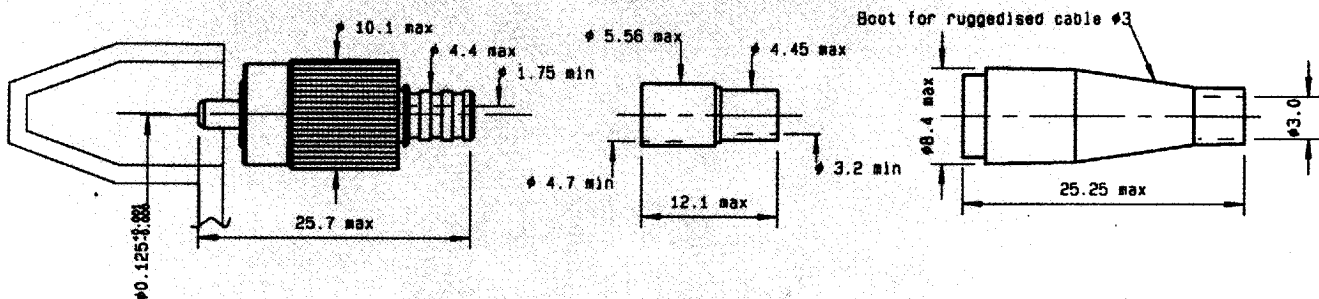
connector for 0.9 mm fiber



connector for 2.5 mm cable



connector for 3 mm cable



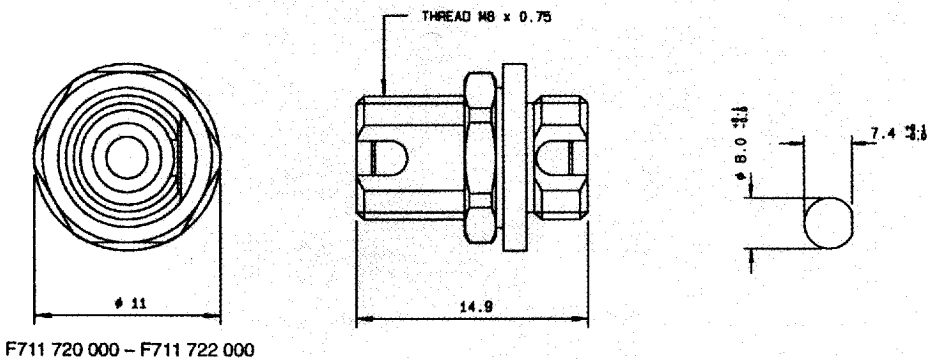
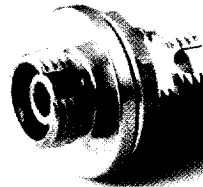
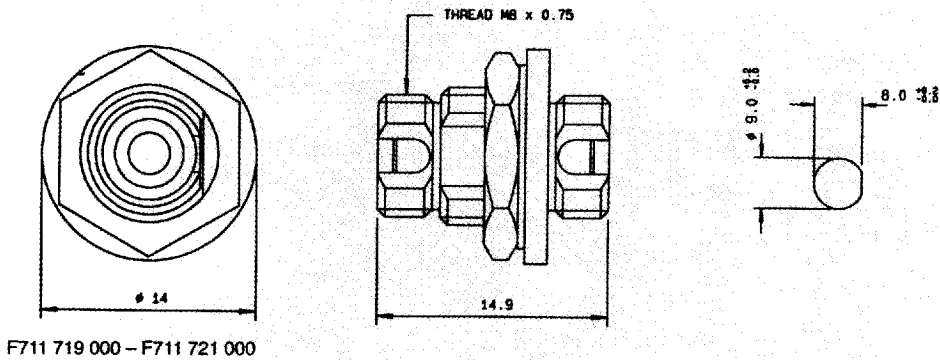
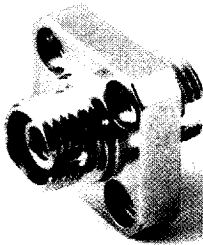
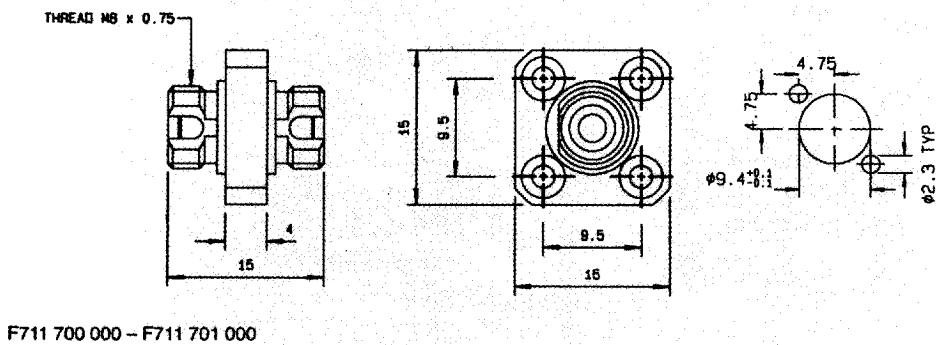
FC/PC INLINE ADAPTORS

RADIALL manufacture a wide range of FC inline adaptors to suit a variety of mounting options.

All adaptors are nickel plated brass and are available with either phosphor bronze or zirconia ceramic alignment sleeves, both being suitable for singlemode and multimode applications.

The "D" hole adaptors are supplied with a lock washer and nut suitable for panel mounting. The flange mount adaptors are not however supplied with screws. All adaptors are fitted with dust caps.

	Zirc alignment	PhBr alignment
square flange – one piece	F 711 700 000	F 711 701 000
'D' hole standard 9 mm	F 711 719 000	F 711 721 000
'D' hole compact (HD) 8 mm	F 711 720 000	F 711 722 000

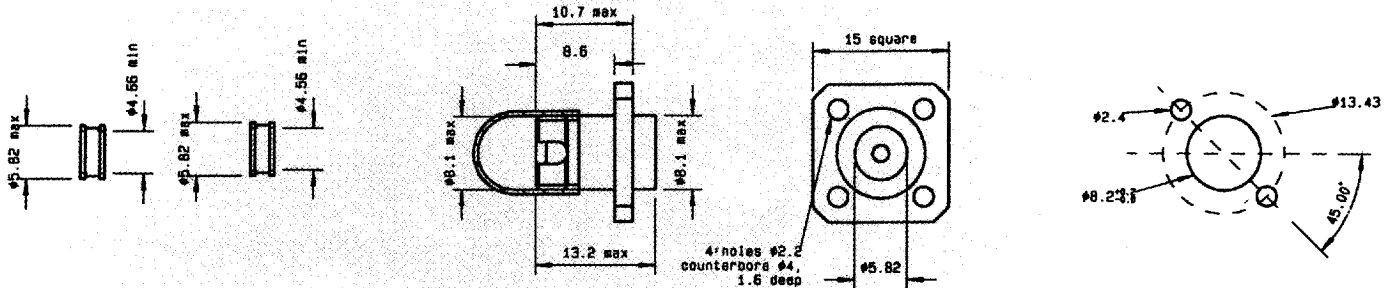


FC/PC RECEPTACLES FOR T018/T046 ACTIVE DEVICES

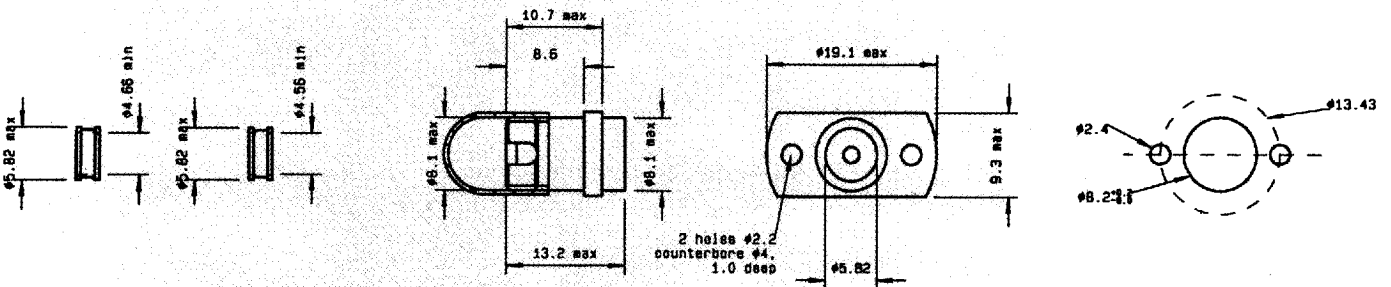
- Screw thread coupling
- Keyed for consistent coupling
- To be used with FC/PC multimode plugs

Custom design incorporating ceramic alignment sleeves can be manufactured for singlemode applications and other connector interfaces. Please, consult RADIALL for details.

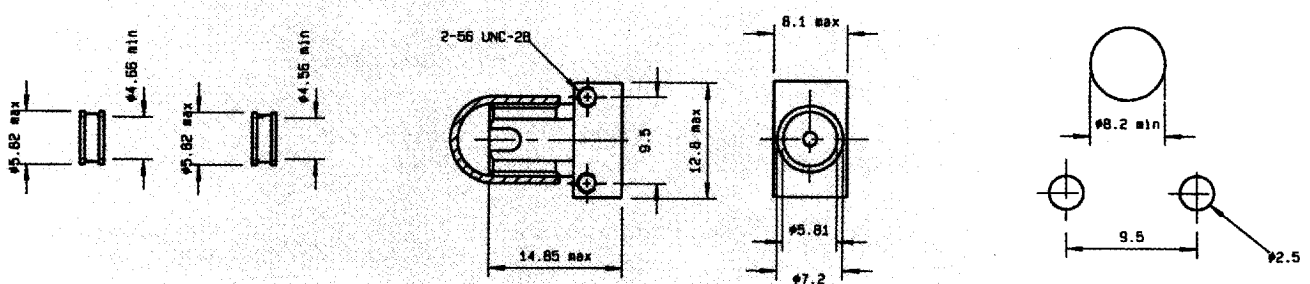
F 711 200 000 Square flange – Panel mounting



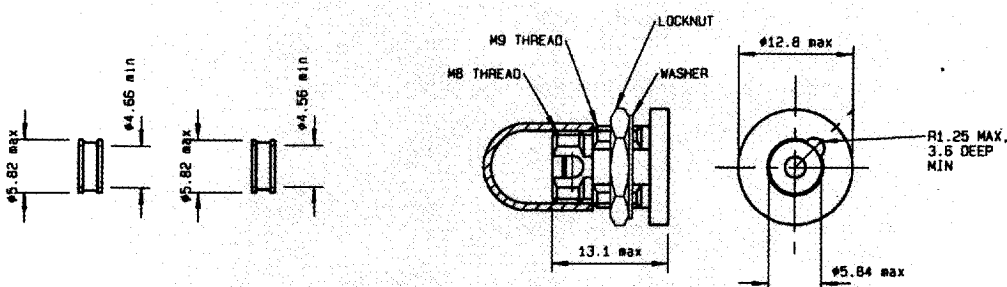
F 711 201 000 Narrow – Panel mounting



F 711 400 000 PCB and Panel mounting



F 711 401 000 Panel mounting



TOOLING

This tooling is only for cabling the "monobloc" version.

Basic kit

220 V	F 780 844 000
110 V	F 780 845 000
Contents	
Buffer stripper	F 780 026 000
Outer jacket stripper	F 780 038 000
Primary stripper	F 780 025 000
Scoring blade	F 780 136 000
5 syringes	F 780 243 000
6 bags of epoxy 353 ND	F 780 242 000
Kevlar cutter	F 780 039 000
Lint free wipes	F 780 808 000
Solvent dispenser	F 780 809 000
Cleaning paper	F 780 527 000
Microscope body	F 780 457 000
Rubber polishing platform	F 780 812 000
Assortment of 10 polishing films *	F 780 810 000
Curing oven	—

Add-on kit F 780 846 000

Polishing jig	F 780 840 000
Crimp tool	F 780 055 000
4 fiber shields	F 780 842 000
Assortment of 18 polishing films *	F 780 810 000
Microscope adaptor	F 780 235 000

*F 780 810 000 : 4 films 0,3 µm, 4 films 1 µm, 4 films 3 µm, 4 films 12 µm, 2 films 30 µm.
Each size of abrasive film can be ordered separately using following part numbers :

	Singlemode	Multimode	Part Numbers
10 films 30 µm (dark green)	•	•	F 780 823 000
10 films 12 µm (yellow)	•	•	F 780 824 000
10 films 3 µm (pink)		•	F 780 825 000
10 films 1 µm (green)	•		F 780 826 000
10 films 0,3 µm (grey)		•	F 780 827 000

Please, consult RADIALL for any information on the "Multipart" connector installation method.

CABLE ASSEMBLIES

Wide range of fibers and cables available. Please consult our general catalogue on "fiber optic cable assemblies".