

FC Series

F729

RADIALL 
The next conneXion

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The FC connector is a fiber optic connector with a screw thread locking mechanism to withstand high-vibration environments

Radiall's FC connector is composed of a plated nickel housing and a 2.5 mm ceramic ferrule and is compliant with the CEI 61754-13 standard.

Radiall's FC connector offers a high precision of positioning which maintains very high optical performances.

The RADIALL FC connector has something more than the competitors: it can be tuned to 1 of 6 positions to optimise the insertion loss (the tuning technique consists of rotating the optical ferrule to reduce the off-set between fiber cores, IEC 61300-2-41).

BENEFITS & FEATURES

• Easy mounting and installation

- Radiall has a proprietary secure bonding to protect the floating mechanism during the resin injection process
- Type-N key
- Color Coding

• High performance

- High precision alignment with proven 2.5 mm zirconia ferrule
- Tested according to GR-326-CORE Telcordia and IEC 60874 specifications
- One-piece tuneable connector® to optimise the fibers' cores alignment when connecting (6 positions)

• Secure connexion

- Pull-proof design with screw thread coupling
- Radiall has improved the crimping reliability thanks to a mini metallic tube protecting the fiber while reducing stress and ensuring excellent cable retention

• Flexible

- Available for MultiMode, SingleMode, PC and APC terminations

APPLICATIONS

- Instrumentation
- Telecom / Datacom
- Broadband subscriber networks
- Fiber management systems
- Active device termination
- Broadcast



OPTICAL CHARACTERISTICS

	SingleMode PC	SingleMode PC «tuned»	SingleMode APC	SingleMode APC «tuned»	MultiMode PC
Wave length	1310-1550 nm				850-1310 nm
Insertion loss (against a reference patchcord) Mean Standard deviation	< 0.20 dB				
	0.14 dB	0.14 dB	0.15 dB	0.15 dB	0.08 dB
Insertion loss (Random) Peak Average	< 0.8 dB, 97%	< 0.6 dB, 99%	< 0.8 dB, 97%	< 0.6 dB, 99%	
	0.25 dB	0.13 dB	0.25 dB	0.15 dB	
Return loss	PC > 30 dB UPC > 50 dB		APC > 60 dB		PC > 20 dB

Insertion Loss Against a reference patchcord: IEC 61300-3-4 Method B

Insertion Loss Random: IEC 61300-3-34

Return loss: IEC 61300-3-6

Note: The optical performances also depend on the fiber and/or cable construction.

MECHANICAL CHARACTERISTICS

	Cable diameter 0.9 mm	Cable diameter 2 & 3 mm
Cable retention	7N	100N
Mechanical endurance	500 matings	

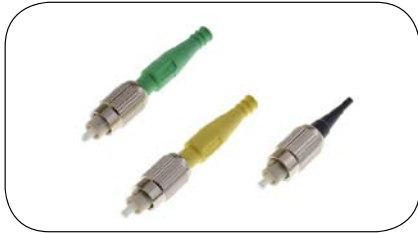
ENVIRONMENTAL CHARACTERISTICS

Operating temperature	-40°C / +70°C
Storage temperature	-40°C / +85°C

INTERNATIONAL STANDARD DOCUMENTS COMPLIANCE

- GR-326-CORE Telcordia specification
- IEC 61754-13 Fiber optic connector interfaces (FC connector family)
- IEC 61300 Fiber optic interconnecting devices and passive components - Basic test and measurement procedures

FC CONNECTORS



The FC connectors are delivered with straight boots, dust caps and crimping accessories, except for the “level 0” categories which enable users to configure their connectors according to the application.

Note: FC connector type “N” can only be inserted into type “N” adapters.

Polishing PC

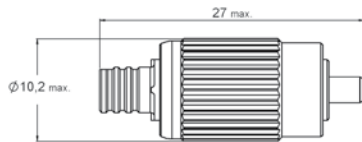


Fig. 1

Polishing APC

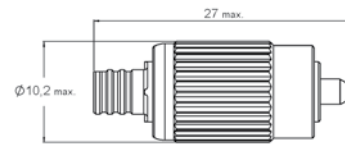


Fig. 2

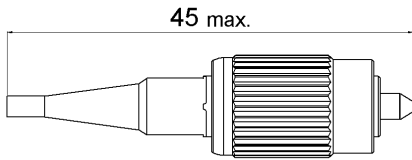


Fig. 3

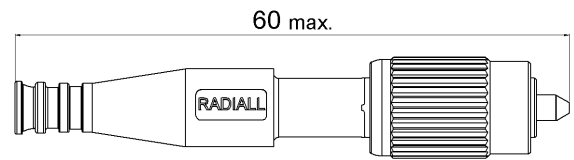


Fig. 4

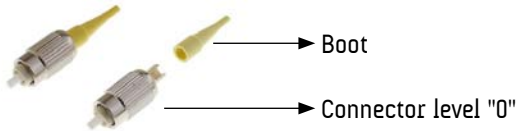
Cable diameter	Figure	SingleMode PC 126µm (yellow boot)	SingleMode APC 126µm (green boot)	MultiMode PC 128µm (black boot)	Packaging
Level «0» ⁽¹⁾	Fig 1 & Fig 2	F729 102 000	F729 112 000	F729 103 000	100
0.9 mm (buffer)	Fig 3	F729 002 100	F729 012 100	F729 003 100	1
		F729 102 100	F729 112 100	F729 103 100	100
2 mm	Fig 4	F729 002 500	F729 012 500	F729 003 500	1
		F729 102 500	F729 112 500	F729 103 500	100
3 mm		F729 002 700	F729 012 700	F729 003 700	1
		F729 102 700	F729 112 700	F729 103 700	100

⁽¹⁾ The level “0” is supplied without boots or crimp sleeves. To complete your connector assembly kit, please refer to the “accessories” section.

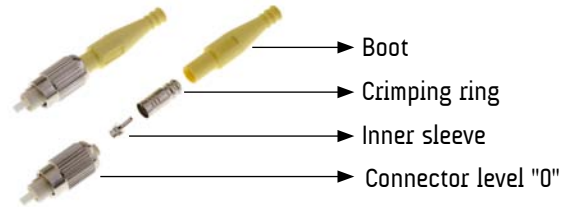
For other cable diameters, please consult the Radiall sales team.

Flexible configuration of simplex connector using level "0" part numbers:

For 0.9 mm cable diameter



For 2 or 3 mm cable diameter



To get more information on how to find the corresponding part numbers and connector kit combination, please refer to the FC kit configurator section.

ADAPTERS



FC adapters with screw threaded coupling system are available in Type N key. They are compatible with PC and APC polishing.

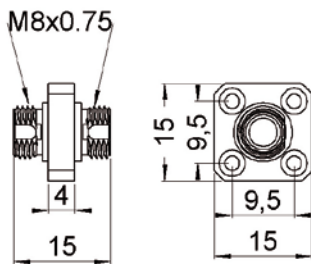
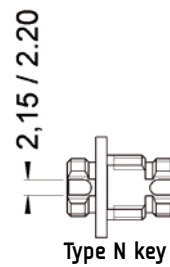


Fig. 1

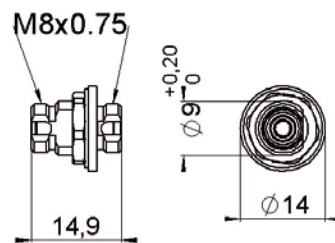


Fig. 2

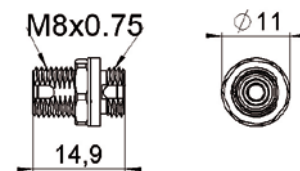



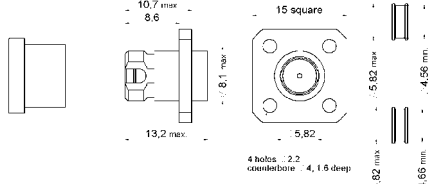
Fig. 3

Part number	Figure	Description	Alignment sleeve	Panel piercing	Packaging
F729 701 000	Fig. 1	Square flange	Zirconia ceramic	P01	1
F729 711 000					100
F729 708 000	Fig. 2	«D» hole standard 9 mm (supplied with lock washer and nut for panel mounting)		P02	1
F729 718 000					100
F729 702 000	Fig. 3	«D» hole compact 8 mm (supplied with lock washer and nut for panel mounting)		P03	1
F729 712 000					100


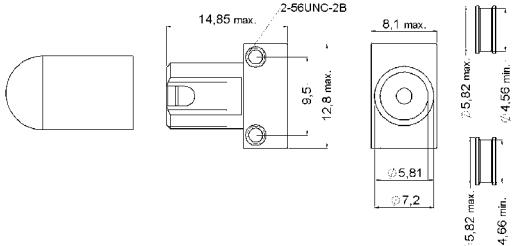
RECEPTACLES

Receptacles have a metal body and are available in square flange or screw thread coupling. They are supplied with 2 centering rings.


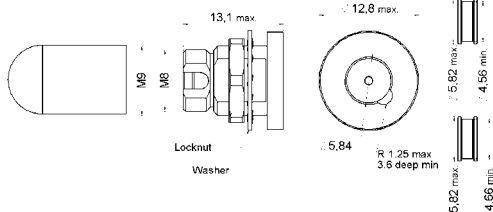
SQUARE FLANGE – PANEL MOUNTING

	Figure	Part number	Panel piercing
		F711 200 000	P04

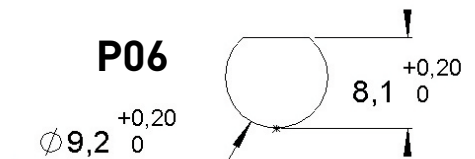
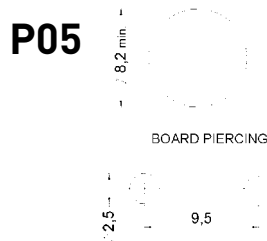
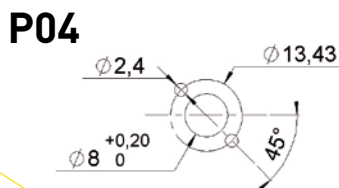
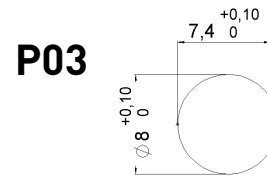
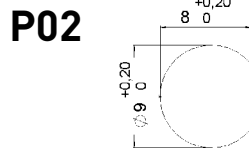
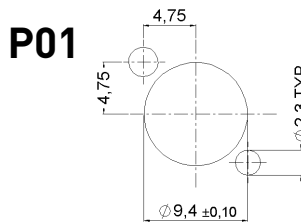
PCB AND BULKHEAD MOUNTING

	Figure	Part number	Panel piercing
		F711 400 000	P05

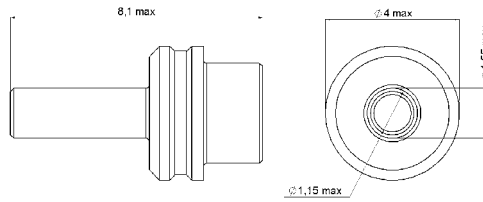
PANEL MOUNTING

	Figure	Part number	Panel piercing
		F711 401 000	P06

PANEL PIERCING



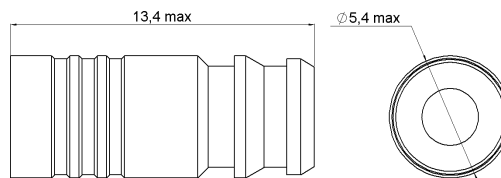
INNER SLEEVES



Cable dia.	Part number	Packaging
1.6 mm to 3 mm	F718 106 200 ⁽¹⁾	100

⁽¹⁾ This reference applies to SC and FC connectors

CRIMPING RINGS



Cable dia.	Part number	Packaging
2 mm	F718 109 200 ⁽¹⁾	100
2.4 mm	F718 108 200 ⁽¹⁾	
2.7/3 mm	F718 107 200 ⁽¹⁾	

⁽¹⁾ These references apply to SC and FC connectors

CONNECTOR CAPS



Pic 1



Pic 2



Pic 3

Description	Picture	Series	Part number	Packaging
Metal dust cap	Pic. 1	FC adapters	F729 802 000	1
Safety plastic cap	Pic. 2	FC and ST connectors	F718 044 000	20
Universal, plastic dust cap	Pic. 3	FC, SC and ST connectors and all connectors with 2.5 mm optical ferrule	F718 111 220	20

BOOTS

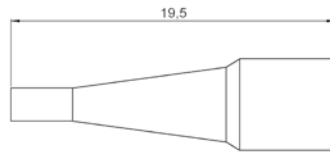


Fig. 1

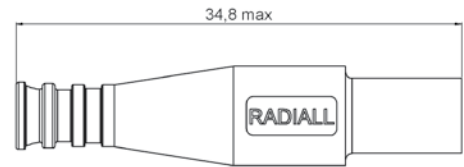


Fig. 2

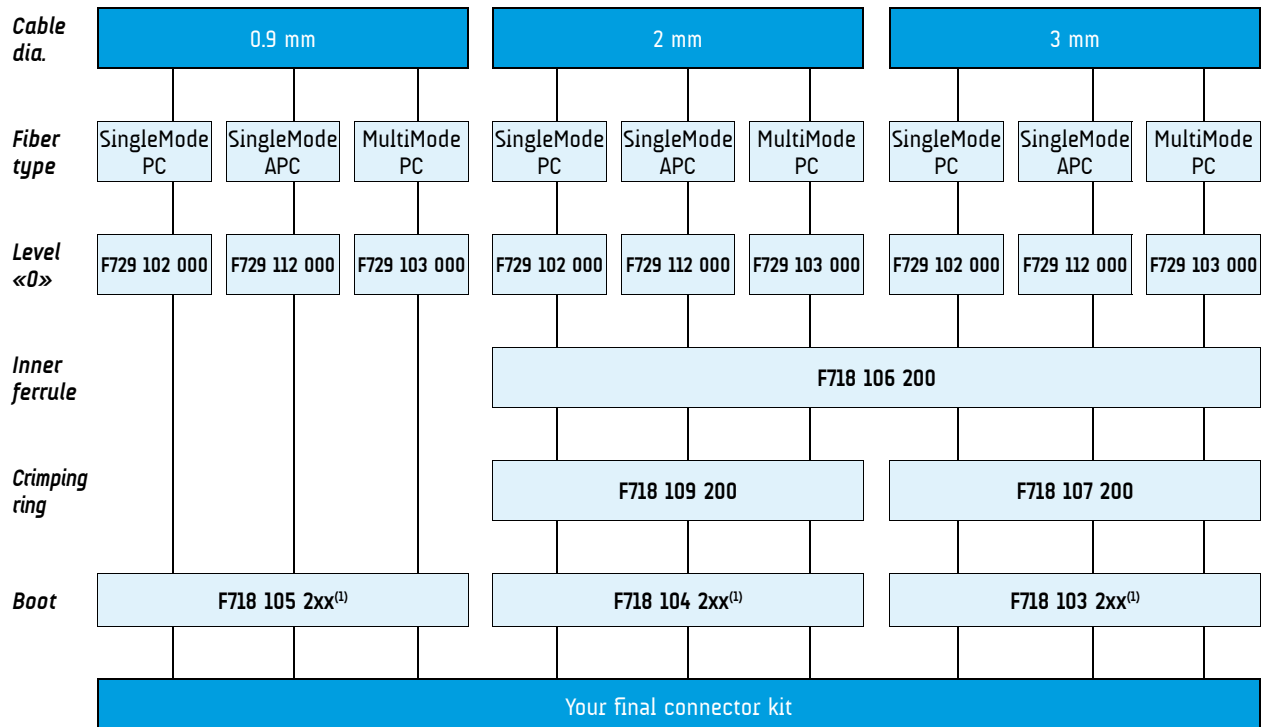
Color	Cable diameter			Packaging
	0.9 mm ⁽¹⁾ Fig. 1	2 to 2.4 mm ⁽²⁾ Fig. 2	2.7 to 3 mm ⁽²⁾ Fig. 2	
Black	F718 105 200	F718 104 200	F718 103 200	100
Blue	F718 105 201	F718 104 201	F718 103 201	
Yellow	F718 105 202	F718 104 202	F718 103 202	
Red	F718 105 203	F718 104 203	F718 103 203	
Green	F718 105 205	F718 104 205	F718 103 205	
Beige	F718 105 206	F718 104 206	F718 103 206	
Aqua	F718 105 210	F718 104 210	F718 103 210	

⁽¹⁾ These references apply to SC and FC connectors

⁽²⁾ These references apply to SC, FC and ST connectors

FC KIT CONFIGURATOR

You can refer to this table and complete your connector by combining different accessories with level "0".



⁽¹⁾ Replace x by the following digit for your color reference:

00 black; 01: blue; 02: yellow; 03: red; 05: green; 06: beige; 10: aqua



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