

2um Fused Coupler/Splitter

Product Description

The FC Series fiber optic coupler is based on Agiltron's fused biconical taper technology and compact packaging structure. It features good uniformity, low excess loss and very low polarization sensitivity. The device is ideal for splitting or combining light with exceptional performance over a wide wavelength range



Features

- Wavelength Independent
- Ultra Low Excess Loss
- Low Polarization Sensitivity
- Highly Stable & Reliable
- Ultra Low Cost

Performance Specifications

FC Series	Parameter		Unit
Coupling Ratio	1/99 to 50/50		
Bandwidth	± 20		nm
Excess Loss ^[1]	< 0.1		dB
Insertion Loss ^[1]	Output1	Output2	
Split Ratio:50/50	< 3.6	< 3.6	dB
Split Ratio:40/60	< 4.8	< 2.8	dB
Split Ratio:30/70	< 6.1	< 2.0	dB
Split Ratio:20/80	< 8.0	< 1.3	dB
Split Ratio:10/90	< 12.0	< 0.8	dB
Split Ratio: 5/95	< 18.4	< 0.5	dB
Split Ratio: 1/99	< 22.0	< 0.3	dB
Uniformity (50/50)	< 1.0		dB
Polarization Dependent Loss	< 0.15		dB
Directivity	> 55		dB
Return Loss ^[2]	> 55		dB
Optical Power Handling	< 5		W
Operating Temperature	-40~75		°C
Storage Temperature	-40~85		°C
Package Dimension *	250um: (φ)3x(L)60		mm
	900um: (φ)3x(L)77		

[1]. without connector. Each connector adds 0.3dB and 0.5dB for short wavelength

[2]. without connector. Each connector adds 5dB

* Other package options available on request

Applications

- Telecommunications
- CATV
- Local Access Network (LAN)
- Fiberoptic Instrumentation

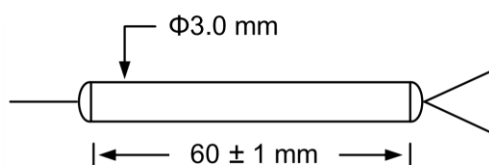
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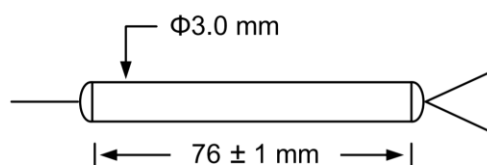
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Mechanical Dimensions (mm)



250 µm bare fiber



900 µm loose tube

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Ordering Information (Part

	A	2	☐ ☐	☐	☐	☐	☐	☐
Prefix			Coupling Ratio	Port	Fiber Type	Fiber Cover	Fiber Length	Connector ^[1]
FC-			01/99 = 99 05/95 = 95 10/90 = 90 20/80 = 80 30/70 = 70 40/60 = 60 50/50 = 50 Special = 00	1x2 = 1 2x2 = 2	SM 1950 = 1 PM 1950 = 2 Special = 0	250µm = 1 900µm tube = 2 Special = 0	0.5m = 1 1m = 2 Special = 0	None = 1 FC / PC = 2 FC / APC = 3 SC / PC = 4 SC / APC = 5 ST / PC = 6 LC = 7 Special = 0

[1]. The default connector configuration uses fiber with 0.9 mm buffer protection. The connector cannot be installed directly onto bare fiber because the bare fiber is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer may remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SMF-28 fiber and decreases further for smaller-core fibers.