



flawless fusion with infinite possibilities

SIFAM
FIBRE OPTICS



Single Fuse Coupler 1x3, 3x3, 1x4, 4x4

The Single Fuse Coupler provides optical splitting and combining for >2 ports. A single low loss fusion takes place to produce 1x3, 3x3, 1x4 and 4x4 couplers in a single cylindrical package.

Standard versions of these components are available optimised for 980, 1310, 1480, 1550 or 1585nm wavelengths. These may be used in a wide variety of applications including optical network expansion.

Single Fuse Couplers, by virtue of their phase properties, are also ideal for use in fibre gyros. Versions are available with ultra-compact housings and $\varnothing 80\mu\text{m}$ cladding fibre pigtails, directly compatible with gyro sensing loops. Low loss ensures optimal gyro sensitivity.

These gyro-optimised Single Fuse Couplers are available on a custom basis. Please contact us for a specification tailored to your requirements.

Key Features:

- Single low loss fusion
- 1x3, 3x3, 1x4, 4x4
- Standard product for network expansion
- $\varnothing 80\mu\text{m}$ cladding fibre capability
- Custom designs for gyro applications

Applications:

- Optical network expansion
- Fibre gyros
- Sensors
- Research

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Optical Specifications₁

Parameter	Specification								Unit
Operating Wavelength	980, 1310, 1480, 1550 or 1585nm								nm
Port Configuration	1x3		3x3		1x4		4x4		
Coupling Ratio	33/33/33		33/33/33		25/25/25/25		25/25/25/25		
Grade	A	B	A	B	A	B	A	B	%
Maximum Insertion Loss ₂	5.7	6.2	6.2	6.5	7.0	7.8	8.0	8.6	dB
Return Loss/Directivity	50								dB
Pigtail Tensile Load	5								N
Optical Power Handling	4								W
Operating Temperature ₃	-40 to +75								°C
Storage Temperature	-40 to +85								°C
Fibre Type	Corning SMF-28 ₄ or 980nm fibre ₅								

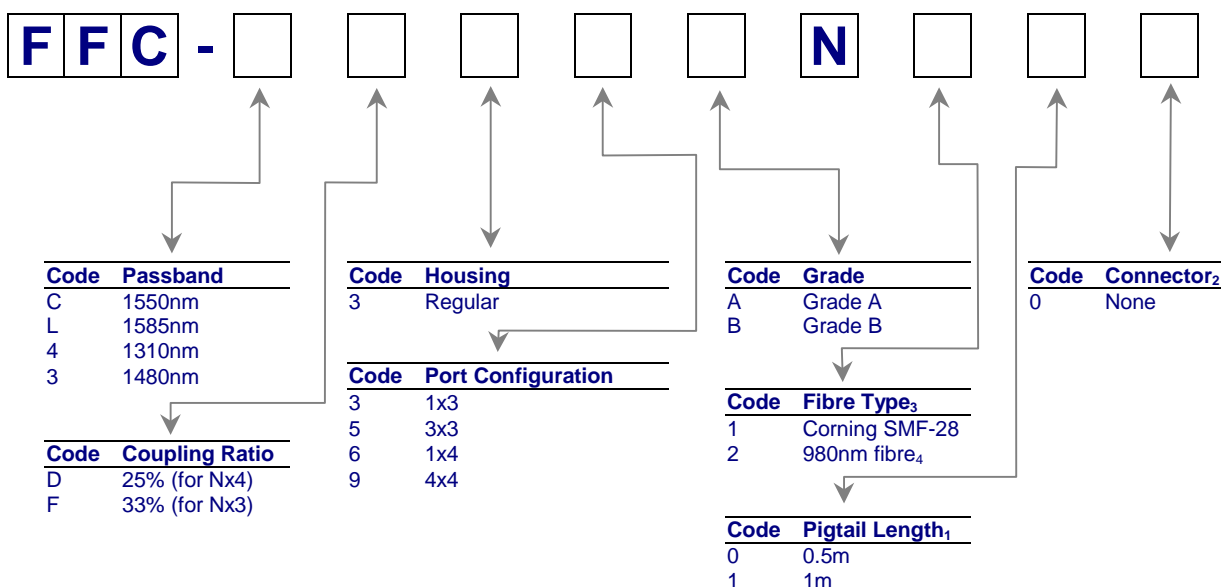
- All specifications are preliminary.
- Insertion loss (not including PDL, TDL or any connector losses).
- For connectorised component, operating temperature range is -5 to +75°C.
- Custom designs using Ø80µm fibre for gyro applications are available. Please contact the sales office for further information.
- For 980nm component.

Housing Option

Housing Code	Description	Dimensions (mm)		Pigtail
3	Regular	1x3, 3x3	3.0 (Ø) x 55 (L)	Primary-coated fibre
		1x4, 4x4	3.0 (Ø) x 71 (L)	

Ordering Code Information

Sample: FFC-CF33AN110 (1550nm, 33%, regular, 1x3, A grade, SMF-28 fibre, 1m pigtail, no connector)



- Minimum pigtail length. Further pigtail lengths available on request. Where connectorised, pigtail length is to connector end face.
- For connectorisation of this component please contact the sales office.
- Custom designs using Ø80µm fibre for gyro applications are available. Please contact the sales office for further information.
- For 980nm components only.

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