Gooch & Housego

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 ∅80μm 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
- ∅80μm cladding fibre capability
- Custom designs for gyro applications

Applications:
- Optical network expansion
- Fibre gyros
- Sensors
- Research

PEC 0115 Issue 3

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Optical Specifications[1]

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]								

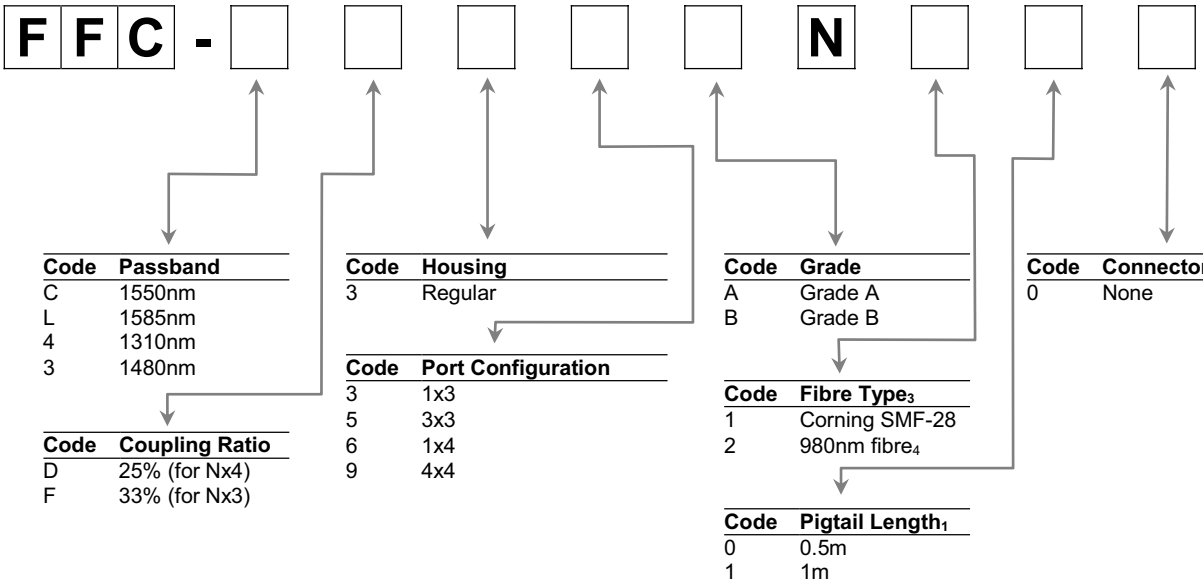
1. All specifications are preliminary.
2. Insertion loss (not including PDL, TDL or any connector losses).
3. For connectorised component, operating temperature range is –5 to +75°C.
4. Custom designs using ∅80μm fibre for gyro applications are available. Please contact the sales office for further information.
5. For 980nm component.

Housing Option

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

Ordering Code Information

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



1. Minimum pigtail length. Further pigtail lengths available on request. Where connectorised, pigtail length is to connector end face.
2. For connectorisation of this component please contact the sales office.
3. Custom designs using ∅80μm fibre for gyro applications are available. Please contact the sales office for further information.
4. For 980nm components only.

As part of our policy of continuous product improvement we reserve the right to change specifications at any time

PEC 0115 Issue 3