



WDM FOR 2 μM OPERATION

Fused Fiber Coupler

DATASHEET

The Gooch & Housego fused WDM, combines multiple wavelengths of light in SM Fiber whilst maintaining low loss.

G&H proprietary manufacturing technology provides low loss, with low polarization dependence (PDL). The all fiber construction offers excellent reliability and high power handling characteristics.

These high performance parts are available in many wavelength configurations, housing, fiber and connector options and can therefore be readily specified in a wide variety of applications, enabling rapid design cycles and new project builds.



Key Features

- Low loss
- Low PDL (by design)
- High power handling
- Custom wavelength capability
- Custom product

Applications

- Telecoms
- Instrumentation
- IR Imaging
- Biomedical
- Industrial
- Defense
- IR Counter measures

Typical Optical Specifications³

Wavelength			Available Housing	Max. Insertion Loss ¹	Min. Isolation ¹ (dB)
CH1	CH2	Spacing ⁴			
1900-2100 nm	1900-2100 nm	> 50 nm	3, 7 and C	0.50	12 (typ > 14)
< 1900 nm ²	1900-2100 nm	-	3, 7 and C	0.40	14 (typ > 20)

¹ Insertion loss/isolation specified at center wavelength and room temperature.

² <1900 nm wavelength range may be below the 2nd order mode cut-off for the fiber used to manufacture this product type. Performance specified for single-mode incident on this path.

³ Custom specifications available on request

⁴ For wavelength spacing < 50 nm, please contact the sales office.

⁵ Stated value may not be guaranteed for some wavelength combinations.

Parameter	Specification
Return loss/directivity ¹	55 dB
Pigtail tensile load	5 N
Optical power handling ^{2,3}	4 W
Operating/storage temperature range	-5 - +75°C -40 - +85°C
Fiber type ⁴	SM fiber

¹ Measured reference port P3 input for signal wavelength, P2 input for pump wavelength and P1 input for signal and pump wavelengths.

² For operation at powers of greater than 4 W the component housing and fiber must be adequately heat-sunk (for additional information contact G&H Sales). Components intended for high power operation are only available in the 2x2 configuration. Component performance and reliability under high power must be determined within the customer system.

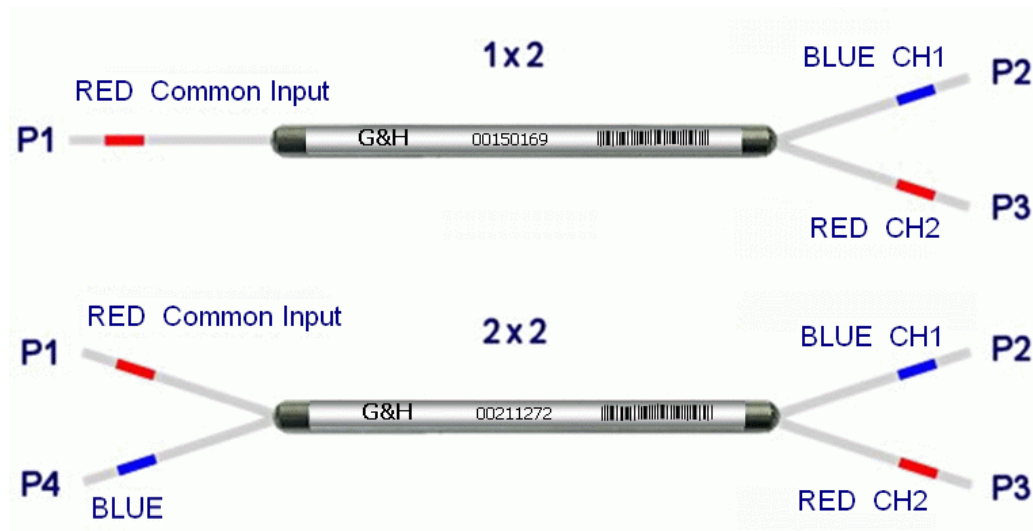
³ The performance and reliability of optical connectors is not guaranteed for optical powers of greater than 1 W.

⁴ Various fiber types available, please contact G&H Sales for additional information.

Housing Option

Housing Code	Description	Max Dimensions (mm)	Pigtail
3	Regular	3.0 (Ø) x 85 (L max)	Primary-coated fiber
7	High power	5 (W) x 5 (H) x 85 (L max)	Primary-coated fiber
C	Regular high power	3.0 (Ø) x 85 (L max)	Primary-coated fiber

Configuration



Order code

Order codes are comprised of a standard device prefix (e.g. FPW) followed by code letters or numbers which correspond to available options.

Sample: FFW-Y40Z80230 (Fused fiber WDM, 1940/2080 nm wavelengths, 2x2 port configuration regular housing, no connectors).

Order code

Order code				①	②	③	④	⑤	⑥	⑦	⑧	⑨
F	F	W	-									

①	Wavelength channel 1	7X	8X	9X	10	11	12x	13	14	15	16	17	18	19	20
		X	X	X	XX	XX	x	XX	XX	XX	XX	XX	XX	XX	XX
	Code	7	8	9	0	1	2	3	S	C	L	W	X	Y	Z

②	Last two digits of channel 1	e.g. XX20				e.g. XX50				e.g. XX70				e.g. XX80			
③	center wavelength																
	Code	20				50				70				80			

④	Wavelength channel 2	19XX								20XX							
	Code	Y								Z							

⑤	Last two digits of channel 2	e.g. XX20				e.g. XX50				e.g. XX70				e.g. XX80			
⑥	center wavelength																
	Code	20				50				70				80			

⑦	Port configuration ³	1x2								2x2							
	Code	1								2							

⑧	Housing ³	Regular housing				High Power				Regular high power			
	Code	0				7				C			

⑨	Connector ^{1,4}	None				FC/APC				FC/PC			
	Code	0				P				R			

1 Insertion loss in specification table does not include connector losses.

2 Pigtail length 1 m (minimum). Further pigtail lengths available on request. Where connectorized, pigtail length is to the connector face.

3 7 & C not available in 1x2 Port Configuration. For more information contact G&H Sales.

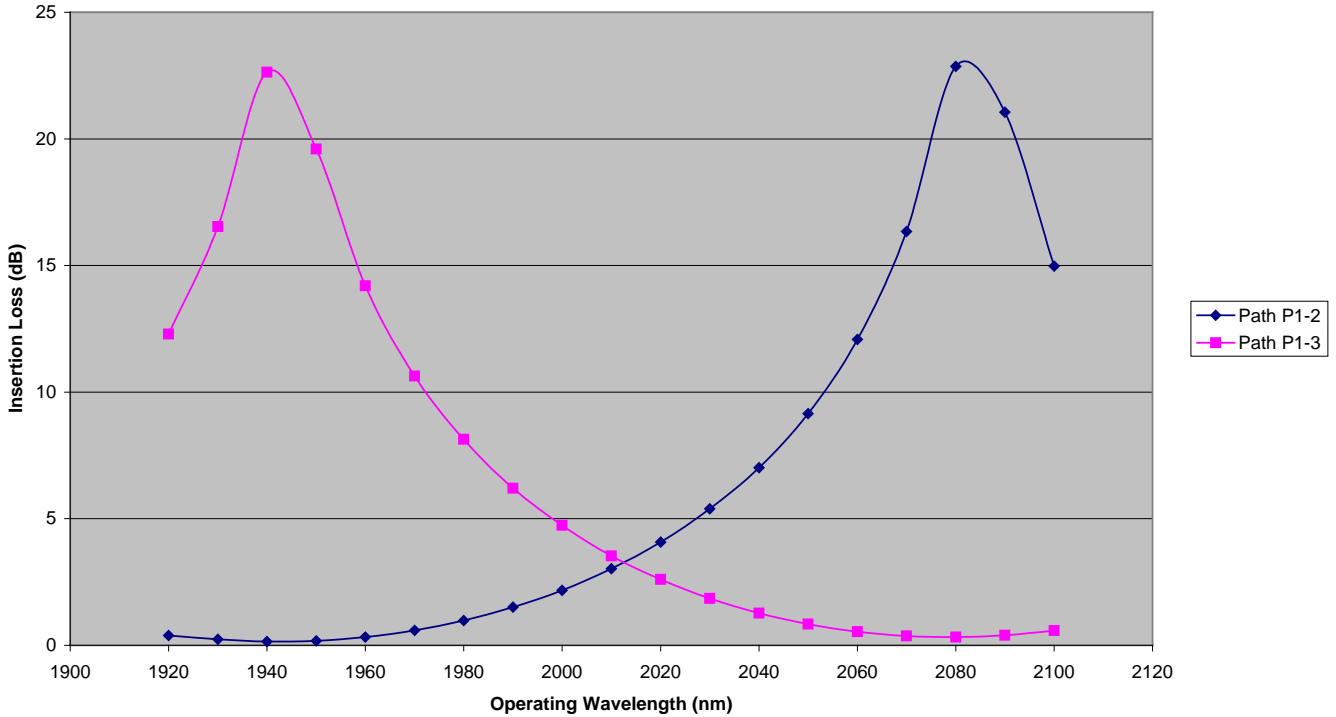
4 To request connectors please contact G&H sales.

Other products which may be of interest


- Fiber-Q™
- High power multimode combiners
- Combiners with all types of signal feedthrough fiber
- Ultra-low ratio tap couplers
- WDMs for combining signals with red pointer lasers
- OCT wideband couplers
- HI REL components

Typical Optical Performance

2um SM WDM: FFW-Y40Z80230 (Centre Wavelengths 1940/2080nm)



Ordering Information:



800 Village Walk #316
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Email orders to: sales@xsoptix.com
 Fax orders to: 800-878-7282

For further information

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