



Visible Wavelength PM Coupler

Fused Fiber Coupler

PRODUCT DATASHEET

The Gooch & Housego Visible PM Coupler enables the accurate monitoring and splitting of optical signals in polarization maintaining fiber.

Manufactured using industry-standard PM fiber, the Visible PM Coupler is available in any coupling ratio from 1 – 50%.

Based on G&H's fused fiber technology, the Visible PM Coupler demonstrates very low loss, high power handling, and there is no price penalty for adding a second input port.

The center operating wavelength may be chosen from within a wide variety of operating passbands, from 450nm to 700nm.

In common with all PM components, it is necessary to launch into either the slow or the fast axis to maintain polarization. For the G&H Visible PM Coupler, performance is characterized on slow axis launch, although fast axis and dual axis versions are also available if requested.



KEY FEATURES

- High PER
- Low excess loss
- High power handling
- 450nm to 700nm available
- Slow axis operation as standard
- Fast and Dual axis operation also available

APPLICATIONS

- Life sciences
- Metrology
- High power fiber lasers

Ordering Information:



800 Village Walk #316
Guilford, CT 06437
Ph: 203-401-8093

Email orders to: sales@xsoptix.com
Fax orders to: 800-878-7282

VISIBLE PM FIBER COUPLER

Datasheet revision no. PEC0222 Issue 1

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

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TYPICAL OPTICAL SPECIFICATIONS ⁴				
Coupling Ratio (%) ³	Available Wavelengths(s) ⁵ (nm)	PER ⁶ (dB)	Coupling Ratio Tolerance ^{1,2} (%)	Excess Loss ^{1,2} (dB)
1	450 – 700	>22	±0.5	0.60
5	450 – 700	>22	±1.5	0.60
10	450 – 700	>22	±3.0	0.60
20	450 – 700	>22	±4.0	0.60
30	450 – 700	>22	±4.0	0.60
40	450 – 700	>22	±5.0	0.60
50	450 – 700	>22	±5.0	0.60

¹ In 2x2 couplers performance through second input port P4 (colored blue) not measured.

² Maximum limit at center wavelength. Not including TDL, PDF, or connector losses.

³ Any coupling ratio available. Please contact us for specifications of coupling ratios not listed.

⁴ Custom specifications, available on request.

⁵ Performance specified for center wavelength selected from within available range.

⁶ Signal path (P12) only for tap <40%.

Parameter	Specification
Operating wavelength	Specified wavelength within the range 450 – 700 nm
Operating / storage temperature range ¹	-40 - +75°C / -40 - +85°C
Optical power handling ^{2,3}	4 W
Pigtail tensile load	5 N
Fiber type	Speciality PM fiber

¹ For connectorized component, operating temperature range is -5 - +75°C.

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.

HOUSING OPTIONS			
Housing Code	Description	1x2, 2x2 Dimensions (mm)	Pigtail
3	Regular	3.0 (Ø) x 60 (L)	Primary-coated fiber
5	Semi-ruggedized slim	3.0 (Ø) x 85 (L)	Ø0.9 mm loose-tube

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Configuration



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Order code

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

Sample: FFP-BA3250A00 (FM fused fiber coupler, 450nm center wavelength, 90/10 coupling ratio, regular housing, 2x2 port configuration, A grade, 0.5m pigtail length, no connectors)

Order code

		1	2	3	4	5	6	7	8	9
F	F	P	-					A		
1	Passband	4XX			5XX			6XX		
	Code	B			G			R		
2	Coupling ratio ⁴	1%	5%	10%	33%	50%				
	Code	1	5	A	F	K				
3	Housing ⁵	Regular				Semi-ruggedized slim				
	Code	3				5				
4	Port configuration ⁵	1x2				2x2				
	Code	1				2				
5	Last two digits of center wavelength ¹	e.g. XX20		e.g. XX50		e.g. XX70		e.g. XX80		
6		Code		Code		Code		Code		
		20		50		70		80		
7	Grade	Grade A								
	Code	A								
8	Pigtail length ²	0.5 m				1 m				
	Code	0				1				
9	Connector ^{3,6}	None			FC/APC-PM			FC/PC-PM		
	Code	0			P			R		

¹ Channel center must be within the wavelength ranges shown in the optical specifications table.

² Minimum pigtail length. Other pigtail lengths are available on request. Where connectorized, pigtail length is to connector end face.

³ Optical specifications in specification table do not include connector loss.

⁴ Other coupling ratios available on request.

⁵ Connectors can only be fitted to housing type 5. For connectorization of other housings contact G&H sales.

PM products are manufactured using 250 µm PANDA PM fiber.

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