PM COUPLERS

Pure Silica Fiber Based 1x2 and 2x2 Coupler, Tap and Optical Signal Splitter

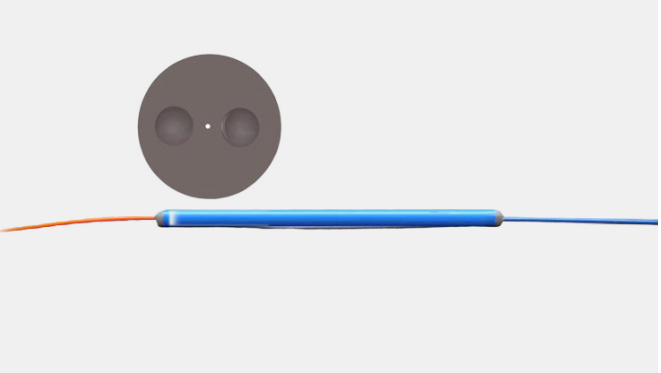
PRODUCT DATASHEET

G&H's fused pure silica fiber based polarization maintaining (PM) fiber optic couplers, taps and optical signal splitters offer high extinction ratio (ER) with polarization launch into a single or dual axis (slow axis and fast axis).

We utilize our proven fused biconical taper (FBT) process to manufacture high grade PM couplers. Our PM components offer high extinction ratio with minimum optical loss. G&H selects PM fiber from different suppliers to accommodate your application -specific operating wavelengths.

These high quality PM couplers are manufactured mainly using panda style pure silica fibers which guarantees a high polarization extinction ratio (PER).

Operating wavelengths range from 400 nm to 680 nm and coupling ratio offerings range from 50/50, 20/80, 10/90, 5/95 and 1/99 etc. Other coupling ratio options are available upon request. These components are available in several mechanical package options. Our pure silica core based PM couplers offer excellent resistance to optical loss caused by radiation.



Key Features

- High polarization extinction ratio (PER)
- Low optical loss
- High isolation
- High reliability

Applications

- Aerospace
- Telecom
- Sensors
- WDM systems

PRODUCT CODE: 52

Optical Specifications

Pure Silica Fiber Based PM 1x2 and 2x2 Fiber Optic Couplers, Taps and optical splitters 400 nm to 680 nm. Nufern PM-S405-XP Fiber

		Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
Axis		Dual axis (slow and fast)		Single axis (slow)		Single Axis (fast)	
Minimum extinction ratio		20 dB	18 dB	20 dB	18 dB	20 dB	18 dB
Excess loss (typical)[1]		<0.9 dB	<1.2 dB	<0.9 dB	<1.2 dB	<0.9 dB	<1.2 dB
Operation temperature		0 to +70°C					
Storage temperature		-40 to +85°C					
Thermal stability		≤0.3 dB					
		Insertion loss					
Coupling ratio	50/50	5.2 dB	5.7 dB	5.2 dB	5.7 dB	5.2 dB	5.7 dB
	20/80	9.2/2.9 dB	10/3.3 dB	9.2/2.9 dB	10/3.3 dB	9.2/2.9 dB	10/3.3 dB
	10/90	12.6/2.4 dB	14/2.8 dB	12.6/2.4 dB	14/2.8 dB	12.6/2.4 dB	14/2.8 dB
	5/95	16.4/2.2 dB	18.8/2.5 dB	16.4/2.2 dB	18.8/2.5 dB	16.4/2.2 dB	18.8/2.5 dB
	1/99	24.8/2.0 dB	25/2.3 dB	24.8/2.0 dB	25/2.3 dB	24.8/2.0 dB	25/2.3 dB

1 Data is for 0.5 m pigtail lengths and no connectors.
2 For pigtail lengths ≥1 m, increase insertion loss maximum values by 0.1 dB per 0.5 m.
3 Insertion losses for duel-axis series are tested on the slow axis only. This is why dual and single axis values are equivalent.

Order code

①			②	③		④	⑤		⑥	⑦	⑧	⑨	⑩
5	2	-		6	7			-				0	

①	**Series**	Series 1	Series 2	Series 3	Series 4	Series 5	Series 6
	Code	1	2	3	4	5	6

②③	**Wavelength example**	460 nm	600 nm
	Code	46	60

④⑤	**Coupling ratio example**	1%	5%	10%	50%
	Code	01	05	10	50

⑥	**Port configuration**	1x2	2x2	1x2 with LRT
	Code	1	2	9

⑦⑧	**Package**[1]	11	12	16	20
	Code	11	12	16	20

⑨	**Connector type**	None
	Code	0

⑩	**Lead length example**	0.5 m	1 m	1.5 m	2 m
	Code	1	2	3	4

1 Additional packaging details can be found here.

Specifications are based on non-connectorized products. For connectorized specifications, please contact sales for details. Custom optical and mechanical configurations are available upon request.

For further information
E: sales@gandh.com
gandh.com

PM COUPLER

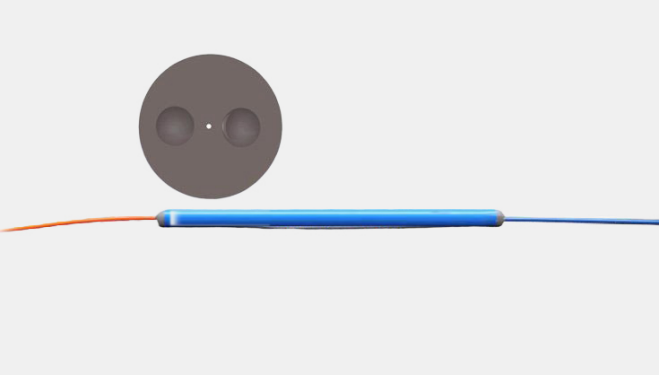
Red, Blue and Green Fiber Optic Couplers, Taps and Optical Signal Splitters

PRODUCT DATASHEET

The G&H fused visible wavelength RGB (Red, Blue and Green) polarization-maintaining (PM) 1x2 and 2x2 fiber optic couplers, taps and optical signal splitters offer high extinction ratio (ER) with polarization launch into a single or dual axis (slow axis and fast axis).

We utilize our proven fused biconical taper process to manufacture high grade PM couplers. Our PM components offer high extinction ratio with minimum optical loss. G&H selects PM fiber from different suppliers to accommodate your application -specific operating wavelengths.

Our visible wavelength PM couplers are manufactured mainly using panda fiber which guarantees a high polarization extinction ratio (PER). Operating wavelengths range from 460 nm to 600 nm and coupling ratio offerings range from 50/50, 20/80, 10/90, 5/95 and 1/99 etc. These components are available in several mechanical packaging with connector options FC/PC, FC/APC etc.



Key Features

- Low optical loss
- Low back-reflection
- Small size
- High extinction ratio with polarization launch into a single or dual axis (slow and fast)
- Very low polarization dependent loss (PDL).
- Made using G&H's proven high reliability FBT process

Applications

- Defense
- Gyroscopes
- Telecom
- Medical
- Sensors

PRODUCT CODE: 52

Optical Specifications

Visible Wavelength RGB PM Fiber Optic Couplers (460 nm to 600 nm) PM 460-HP Fiber

		Series 1	Series 2	Series 3	Series 4
Axis		Dual axis (slow and fast)		Single axis (slow)	
Minimum extinction ratio		20 dB	18 dB	20 dB	18 dB
Excess loss (typical)[1]		<0.5 dB	<0.8 dB	<0.5 dB	<0.8 dB
Operation temperature		0 to +70°C			
Storage temperature		-40 to +85°C			
Thermal stability		≤0.3 dB			
		Insertion loss			
Coupling ratio	50/50	3.8 dB	4.0 dB	3.8 dB	4.0 dB
	20/80	8.1/1.7 dB	8.3/1.9 dB	8.1/1.7 dB	8.3/1.9 dB
	10/90	11.6/1.2 dB	11.8/1.4 dB	11.6/1.2 dB	11.8/1.4 dB
	5/95	15.1/08 dB	15.3/1.0 dB	15.1/08 dB	15.3/1.0 dB
	1/99	23.5/0.6 dB	23.7/0.8 dB	23.5/0.6 dB	23.7/0.8 dB
Return loss		≥30 dB			
Power handling		≤500 mW			
Operation temperature		-20 to +70°C			
Storage temperature		-40°C to +85°C			
Package dimensions		Ø5.5x34 mm			
Lead buffer		Bare fiber or 900 µm jacket			

1 Data is for 0.5 m pigtail lengths and no connectors.
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3 Insertion losses for duel-axis series are tested on the slow axis only. This is why dual and single axis values are equivalent.

Order code

①			②	③		④	⑤		⑥	⑦	⑧	⑨	⑩
5	2	-		6	5			-				-					

①	**Series**	Series 1	Series 2	Series 3	Series 4
	Code	1	2	3	4

②③	**Wavelength example**	460 nm	600 nm
	Code	46	60

④⑤	**Coupling ratio example**	1%	5%	10%	50%
	Code	01	05	10	50

⑥	**Port configuration**	1x2	2x2	1x2 with LRT
	Code	1	2	9

⑦⑧	**Package**	11	12	17	20	21	22	25	31	32
	Code	11	12	17	20	21	22	25	31	32

⑨	**Connector type**	None	FC/PC	FC/APC
	Code	0	3	6

⑩	**Lead length example**	0.5 m	1 m	1.5 m	2 m
	Code	1	2	3	4

1 Additional packaging details can be found here.

Specifications are based on non-connectorized products. For connectorized specifications, please contact sales for details. Custom optical and mechanical configurations are available upon request.

For further information

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