

## 405nm 1x2 2x2 PM Fiber Fused Coupler

405nm 1x2, 2x2 Polarization Maintaining (PM) Fused Coupler is built with fused biconical taper (FBT) technology, it can be used in split the optical signal power into two parts with even or various coupling ratio and keep the polarization maintaining, it's widely applied in fiber optic sensor, fiber amplifier system and fiber optic diffraction field.

### Application:

Quantum Communication  
Fiber Optic Sensor  
Fiber Laser  
Optical Diffraction System

### Features:

Low Excess Loss  
Low Insertion Loss  
High Extinction Ratio  
High Reliability



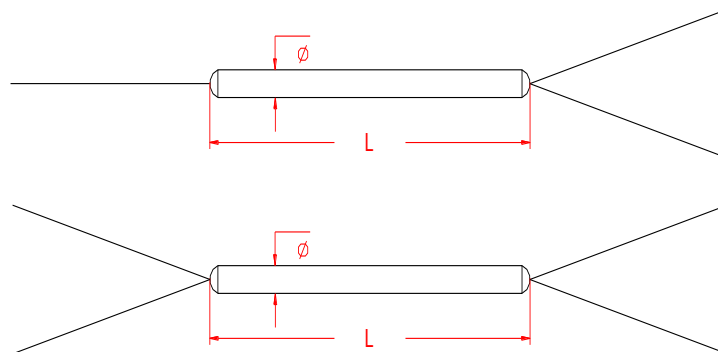
### Specification:

Parameter	Symbol	Value	Unit	
Center Wavelength	$\lambda$	405	nm	
Bandwidth	BW	$\pm 5$	nm	
Max. Excess Loss	EL	1.5	dB	
Max. Insertion Loss	IL	50/50 ( $\pm 3.5$ )	3.8/3.8	dB
		40/60 ( $\pm 2.5$ )	5.2/3.1	dB
		30/70 ( $\pm 2.5$ )	5.8/2.0	dB
		20/80 ( $\pm 2.0$ )	8.0/1.5	dB
		10/90 ( $\pm 1.2$ )	11.6/1.2	dB
		5/95 ( $\pm 0.8$ )	14.8/0.8	dB
		3/97 ( $\pm 0.7$ )	17.0/0.5	dB
		2/98 ( $\pm 0.6$ )	18.4/0.4	dB
		1/99 ( $\pm 0.4$ )	22/0.35	dB
Min. Extinction Ratio	ER	18	dB	
Min. Directivity		50	dB	
Min. Return Loss	RL	50	dB	
Fiber Type		Nufern PM-S405-XP Panda Fiber	-	
Max. Tensile Load		5	N	
Max. Optical Power (CW)	P	500	mW	
Operating Temperature	T	-5~75	$^{\circ}\text{C}$	
Storage Temperature	T	-40~85	$^{\circ}\text{C}$	
Package Dimension		$\Phi 3.0 \times L60$	mm	

Notice: Above specifications are tested at center wavelength without connector in room temperature @23 $^{\circ}\text{C}$ .

For devices with connectors, IL will be 0.3dB higher, EL will be 0.2dB higher, ER will be 2dB lower, slow axis is default aligned to the connector key.

### Drawing:



**Ordering Information (Part Number):****PMFUC-WWW-PP-A-RR-J-LL-CC**

<b>WWW</b>	<b>PP</b>	<b>A</b>	<b>RR</b>	<b>J</b>	<b>LL</b>	<b>CC</b>
<b>Wavelength</b>	<b>Port</b>	<b>Working Axis</b>	<b>Coupling Ratio</b>	<b>Fiber Jacket</b>	<b>Fiber Length</b>	<b>Connector</b>
400 - 400nm	12 - 1x2	B - Both Axes	01 - 1/99	B - 250um Bare Fiber	05 - 0.5m	NE - None
405 - 405nm	22 - 2x2	Working	02 - 2/98	9 - 900um Loose Tube	10 - 1.0m	FA - FC/APC
410 - 410nm		S - Slow Axis	03 - 3/97		15 - 1.5m	FU - FC/UPC
420 - 420nm		Working	05 - 5/95		20 - 2.0m	SA - SC/APC
430 - 430nm		F - Fast Axis	10 - 10/90		SS - Specify	SU - SU/APC
440 - 440nm		Working	20 - 20/80			LA - LC/APC
450 - 450nm			30 - 30/70			LU - LC/UPC
457 - 457nm			40 - 40/60			SS - Specify
SSS - Specify			50 - 50/50			
			SS - Specify			