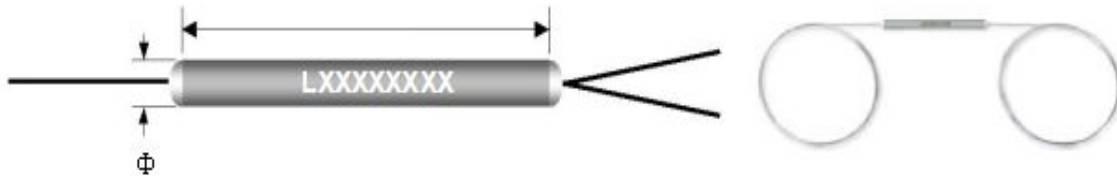


## Polarization Maintaining Fused Standard Coupler(PMC)

PHX uses unique fusing technique and polarization maintaining fiber to build the polarization maintaining fused standard coupler (PMC). The coupling ratio could be selected according to customer's request. It features low excess loss, small size and high polarization extinction ratio. PMC is widely used for optical sensors and optical gyro, optical amplifier.



### Specifications

#### 1. Normal size PM Coupler Specifications:

Parameter \ Wavelength		780,840±15nm		980,1064±15nm		1310,1480,1550±15nm	
		P	A	P	A	P	A
IL(dB) @Central wavelength h	CR						
	50/50	≤3.8	≤4.0	≤3.6	≤3.8	≤3.4	≤3.6
	30/70	≤6.3/2.2	≤6.5/2.4	≤5.75/2.0	≤6.1/2.1	≤5.6/1.95	≤5.75/2.1
	20/80	≤8.2/1.7	≤8.5/1.9	≤8.0/1.5	≤8.2/1.7	≤7.6/1.4	≤8.0/1.5
	10/90	≤11.8/1.4	≤12.0/1.6	≤11.6/1.2	≤11.8/1.4	≤11.2/0.85	≤11.6/1.0
	5/95	≤15.0/1.0	≤15.2/1.2	≤14.8/0.8	≤15.0/1.0	≤14.2/0.6	≤14.8/0.8
	3/97	≤17.5/0.9	≤17.7/1.0	≤16.57/0.45	≤17.12/0.6	≤16.2/0.4	≤16.7/0.5
	2/98	≤19.0/0.85	≤19.2/0.95	≤18.4/0.4	≤18.9/0.5	≤18.0/0.35	≤18.5/0.45
	1/99	≤22.5/0.75	≤22.8/0.85	≤22.0/0.35	≤22.5/0.4	≤21.5/0.3	≤22/0.4
Connector Loss		0.8		0.5		0.3	
ER(dB)	CR>5%	20	18	20	18	20	18
	5%≥CR>1%	18	16	18	16	18	16
	CR≤1%	Out of concern					
Dimension: Φ×L(mm)		3×54 or longer					

## 2. Mini size PM Coupler Specifications:

Operating wavelength	CR	IL (dB)@Central wavelength	ER (dB)		Dimensions $\Phi \times L$ (mm)
			P	A	
980 1064 1480,1550 $\pm 15\text{nm}$	50/50	$\leq 3.8$	$\geq 20$	$\geq 18$	3 $\times$ 30
	30/70	$\leq 6.1/2.3$			
	20/80	$\leq 8.2/1.8$			
	10/90	$\leq 11.5/1.2$			
	5/95	$\leq 14.5/1.0$	$\geq 18/20$	$\geq 16/20$	
	3/97	$\leq 17.1/0.6$			
	2/98	$\leq 18.9/0.5$			
	1/99	$\leq 22.0/0.4$	$\geq \text{NA}/20$	$\geq \text{NA}/18$	
0.1/99.9	28~32 / 0.4				

Parameter	Unit	Specification
Return loss	dB	$\geq 50$
Directivity	dB	$\geq 50$
Power handling	mW	$\leq 500$
Operating temperature	$^{\circ}\text{C}$	-5~75
Storage temperature	$^{\circ}\text{C}$	-40~85
Fiber type	$^{\circ}\text{C}$	Panda PM fiber

- 1). The specifications are without connector. For devices with connectors, IL should be 0.3dB(1310~1550) or 0.5dB(980~1060) or 0.8dB(780~850) higher, ER should be 2dB lower.
- 2). The specifications are given for slow axis working only, if fast axis or both axis working needed, IL will be 0.3dB higher.
- 3). For device adding connectors, key aligns to slow axis if no special requirement.

## Ordering Information

PMC-X-XXX-XXX-XX/XX-X-X-XX/XXX-XX\*XX

