

# 1x2 and 2x2 PM Fused Coupler



## FEATURES

- Low Excess Loss and Insertion Loss
- High Power Handling
- High Stability and Reliability
- High Extinction Ratio
- Operating On Both Fast and Slow Axes

## APPLICATION

- Power Monitoring
- Coherent Communication
- Fiber Laser and Amplifier
- Fiber Gyroscope
- Fiber Sensor
- Instrumentation

## PERFORMANCE SPECIFICATIONS

Parameter	Specifications						
	780±15, 850±15nm		980±15, 1064±15nm		1310±15, 1550±15nm		
Grade	P	A	P	A	P	A	
Insertion Loss (Max)	Coupling ratio: 50/50%	3.6/3.6dB	3.8/3.8dB	3.6/3.6dB	3.8/3.8dB	3.6/3.6dB	3.8/3.8dB
	40/60%	5.2/3.1dB	5.4/3.3dB	5.2/3.1dB	5.4/3.3dB	5.2/3.1dB	5.4/3.3dB
	30/70%	5.8/2.0dB	6.1/2.1dB	5.8/2.0dB	6.1/2.1dB	5.8/2.0dB	6.1/2.1dB
	20/80%	8.0/1.5dB	8.2/1.7dB	8.0/1.5dB	8.2/1.7dB	8.0/1.5dB	8.2/1.7dB
	10/90%	11.6/1.2dB	11.8/1.4dB	11.6/1.20dB	11.8/1.4dB	11.6/1.20dB	11.8/1.4dB
	5/95%	14.8/0.80dB	15.0/1.0dB	14.8/0.80dB	15.0/1.0dB	14.8/0.80dB	15.0/1.0dB
	2/98%	18.4/0.40dB	18.9/0.50dB	18.4/0.40dB	18.9/0.50dB	18.4/0.40dB	18.9/0.50dB
	1/99%	22.0/0.35dB	22.5/0.40dB	22.0/0.35dB	22.5/0.40dB	22.0/0.35dB	22.5/0.40dB
Excess loss (Max)	0.80dB	1.0dB	0.80dB	1.0dB	0.40dB	0.60dB	
ER* (High Ratio Port)	20dB	18dB	20dB	18dB	20dB	18dB	
ER* (Low Ratio Port)	16dB	14dB	16dB	14dB	16dB	14dB	
CR Tolerance @ λc	50/50 : ±3.0%; 40/60 : ±2.5%; 30/70 : ±2.0%; 20/80 : ±2.0%; 10/90 : ±1.0%; 5/95 : ±0.50%; 2/98 : ±0.30%; 1/99 : ±0.20%						
Thermal stability	≤ 0.005dB/°C						
Return loss	≥ 55dB						
Directivity	≥ 50dB						
Optical power (CW)	≤ 500mW						
Operating Temperature	- 20 to +75°C ( - 40 to +85°C Available upon request)						
Storage Temperature	- 40 to +85°C						
Package Dimensions	A= Standard, Φ3.0xL54 for 250um; Φ3.0xL60 for 900um M=Compact, Φ3.0xL35 for 250um; Φ3.0xL54 for 900um						

Note:

\*ER: Extinction ratio.

IL is 0.3dB higher, RL 5dB lower and ER 2dB lower for each connector added.

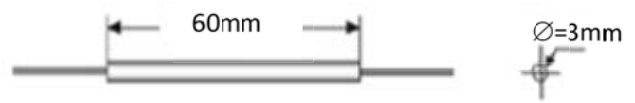
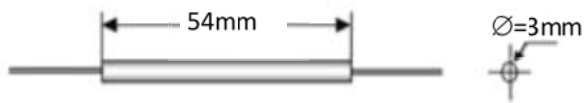
Connector key is aligned to slow axis.

All values referenced are without connector.

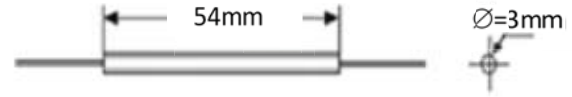
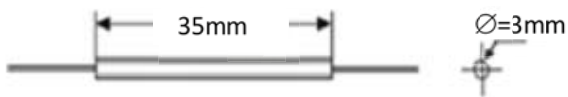
## 1x2 and 2x2 PM Fused Coupler

### MECHANICAL DIMENSIONS

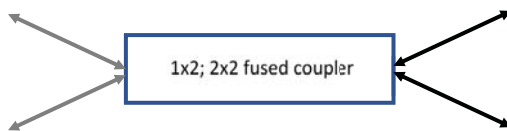
#### A Package



#### M Package



### PORT CONFIGURATIONS



### ORDERING INFORMATION

Type	Grade	Operating Wavelength	Coupling Ratio	Port	Package	Fiber Type	Pigtail Style	Fiber Length	In Connector	Out Connector
PMS=Standard	P=P grade	78=780nm	50=50:50	102=1x2	A=A package	J=PM780	1=Bare fiber	07=0.75m	0=None	0=None
	A=A grade	85=850nm	40=40:60	202=2x2	M=M package	K=PM850	2=900um	10=1.0m	1=FC/APC	1=FC/APC
		98=980nm	30=30:70			L=PM980	loose tube	·	2=FC/PC	2=FC/PC
		06=1064nm	20=20:80			M=PM1310		·	3=SC/APC	3=SC/APC
		31=1310nm	10=10:90			N=PM1550		·	4=SC/PC	4=SC/PC
		55=1550nm	05=5:95						5=ST	5=ST
		SS=Custom	02=2:98						6=LC/UPC	6=LC/UPC
	01=1:99						7=LC/APC	7=LC/APC		