

# Polarization Maintaining Fused Coupler



## FEATURES

Low Excess Loss & 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

Parameter	Specifications					
	P Grade		A Grade		A Grade	
Center Wavelength	780, 850nm		980, 1064nm		1310, 1550nm	
Bandwidth	± 20nm		± 20nm		± 20nm	
Excess Loss (Tap.)	0.6dB	0.8dB	0.6dB	0.8dB	0.2dB	0.3dB
Excess Loss (Max.)	≤ 0.8dB	≤ 1.0dB	≤ 0.8dB	≤ 1.0dB	≤ 0.4dB	≤ 0.6dB
Extinction Ratio* (Min.)	≥ 18dB	≥ 16dB	≥ 18dB	≥ 16dB	≥ 20dB	≥ 17dB
Thermal Stability	≤ 0.005dB/°C					
Return Loss	≥ 55dB					
Directivity (Min.)	≥ 50dB					
Optical Power (Continuous Wave)	2W					
Operating Temperature	-40 to +85°C					
Storage Temperature	-40 to +85°C					
Fiber Type	Panda fiber					
Pigtail Type	250µm bare fiber		900µm loose tube		900µm/2mm/3mm loose tube	
Dimensions	3.0mm×54mm		3.0mm×70mm		L98mm x W14mm x H8.5mm	

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### COUPLING RATIO & ITS TOLERANCE

Coupling Ratio	1/99%	2/98%	5/95%	10/90%	20/80%	30/70%	40/60%	50/50%
Coupling Ratio Tolerance ( $\lambda c$ ) (Max.)	$\pm 0.2\%$	$\pm 0.3\%$	$\pm 0.5\%$	$\pm 1.0\%$	$\pm 2.0\%$	$\pm 2.0\%$	$\pm 2.5\%$	$\pm 3.0\%$

NOTE: 1. RL is 5 dB lower, ER is 2 dB lower for each connector added. Connector key is aligned to slow axis.

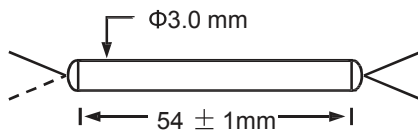
2. The optical power is 1 W only for connector added.

3. Data tested at central wavelength only.

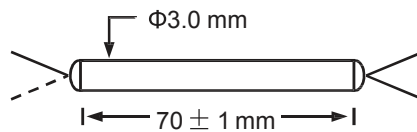
4. Slow Axis working with specified coupling ratio; however, Fast Axis is not blocked.

\* ER data listed in the table are for the ports with coupling ratio greater than 10%. It will be 2 dB lower for a tap port with coupling ratio between 1-10%. For 1% tap port, ER is not considered.

### MECHANICAL DIMENSIONS



250  $\mu$ m bare fiber



900  $\mu$ m loose tube

### ORDERING INFORMATION

Grade	Wavelength	Coupling Ratio	Port	Package Dimensions	Pigtail Style	Fiber Type	Fiber Length	In/Out Connector
A	78 = 780nm	01 = 1/99	0102 = 1x2	1 = 3.0mm×54mm		1 = PM 780	1 = 0.8m	0 = None
	85 = 850nm	02 = 2/98	0202 = 2x2	2 = 3.0mm×70mm		2 = PM 850	S = Specify	1 = FC/APC
	98 = 980nm	05 = 5/95		3 = L98mmxW14mm		3 = PM 980		2 = FC/PC
	10 = 1064nm	10 = 10/90		xH8.5mm		4 = PM 1310		3 = SC/APC
	13 = 1310nm	20 = 20/80		S = Specify		5 = PM 1550		4 = SC/PC
	14 = 1480nm	30 = 30/70				S = Specify		5 = ST
	15 = 1550nm	40 = 40/60						6 = LC/UPC
	SS = Specify	50 = 50/50						7 = LC/APC
		SS = Specify						X = Special

A = Grade A  
 P = Grade P

1 = 250um Bare Fiber  
 2 = 900um Loose Tube  
 3 = 900um /2mm/3mm Loose Tube  
 S = Specify