

Polarization Maintaining Coupler

PMC – 001

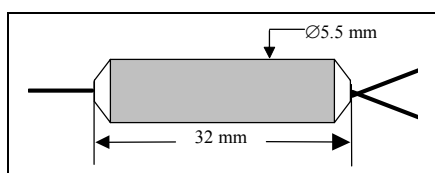


PMC-001 is a polarization maintaining coupler which either splits the light from the input PM fiber into two output PM fibers, or combines light signals from two PM fibers into a single PM fiber. The state of polarization can either be aligned with the slow axis of the PM fibers or the fast axis. The device can be used to split a high power linearly polarized light into multiple paths without perturbing the linear state of polarization (SOP). It can also be used as a power tap to monitor signal power in a PM fiber system without disturbing the linear SOP of light propagating in the PM fiber. The application includes PM fiber interferometers, power sharing in polarization sensitive systems, and signal monitoring in PM fiber systems. The rugged stainless steel package is designed for high optical performance and stability. This compact device offers low excess insertion loss, low back reflection, high extinction ratio. Splitting ratios from 1 to 50% are available.

Preliminary Specifications

Grade	Premium	A Grade
Excess Loss	$\leq 0.4\text{dB}$	$\leq 0.4\text{dB}$
Split Ratio (%)	1 ~ 50	1 ~ 50
Split Ratio Tolerance (%) ¹	± 2.5	± 5.0
Return Loss	$> 50\text{dB}$	
Extinction Ratio	$> 18\text{dB}$	
Operating Wavelength	1310 or 1550 nm	
Operating Bandwidth	$\pm 25\text{ nm}$	
Fiber Type	PM Panda Fiber	
Operating Temperature	0 to 60 °C	
Storage Temperature	-40 to 80 °C	
Maximum Power	300 mW min.	
Input Polarization Orientation	Slow Axis	

Note: 1. 50/50 split ratio



Features

- Compact, $\phi 5.5\text{ mm} \times 32\text{ mm}$
- Low insertion loss
- Low reflection
- Rugged Design

Applications:

- Power sharing in PM fiber systems
- Power monitoring in PM systems
- PM fiber interferometers

Ordering Information:

PMC- 001- XX - XX- XXX- X

Split Ratio (%)
xx = xx %

00 = No connector
FC = FC type
SC = SC type

Polishing Type
PC
APC

Wavelength
1 = 1.3 μm
2 = 1.55 μm