

Polarization Maintaining In-Line Polarizer



Description

A Polarization Maintaining In-Line Polarizer is a fiber-optic polarizing component designed to transmit light along one defined polarization axis while strongly suppressing the orthogonal polarization. Integrated with polarization maintaining fiber, it provides stable linear polarization output with high extinction ratio and low insertion loss, making it suitable for fiber lasers, coherent optical systems, interferometers, fiber sensors, and polarization-sensitive test setups.

Features

- High Extinction Ratio
- High Stability and Reliability
- Compact Size

Applications

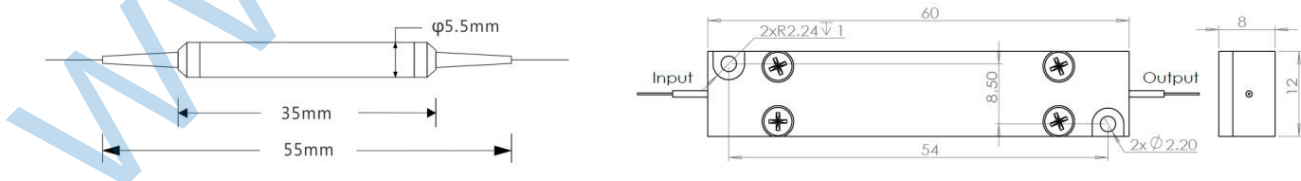
- Fiber Laser
- Fiber Sensor/Amplifier
- Fiber Optic Communication

Specifications

Parameter	Unit	Value				
Center Wavelength	nm	780/808/830/850	980/1030/1064	1310	1480/1550	1950/2000/2050
Operating Wavelength Range	nm	±30	±30	±50	±50	±30
Insertion Loss	dB	≤1.0	≤0.6	≤0.5	≤0.5	≤1.0
Return Loss	dB	≥50				
Extinction Ratio	dB	≥25	≥28	≥28	≥28	≥20
Max Optical Power (CW)	W	0.5/1/3/5/10				
Input Fiber Type	-	780-HP or PM780	Hi1060 or PM980	SMF-28e or PM1300	SMF-28e or PM1550	SM1950 or PM1950
Output Fiber Type	-	780-HP or PM780	Hi1060 or PM980	SMF-28e or PM1300	SMF-28e or PM1550	SM1950 or PM1950
Tensile Load	N	5				
Package Dimensions	mm	Φ5.5 x L35 (≤5W) or 60 x 12 x 8 (≥5W)				
Operating Temperature	°C	-5 to +70				
Storage Temperature	°C	-40 to +85				

Notes: Tested at 25 °C. Data exclude connectors. Adding connectors will increase insertion loss by approximately 0.3 dB, reduce return loss by 5 dB, and decrease extinction ratio by 2 dB. The fiber slow axis is aligned to the key by default.

Product Dimensions



Ordering Information

						
Center Wavelength	Max Optical Power (CW)	Input Fiber Type	Output Fiber Type	Pigtail Length	Pigtail Diameter	Connector
780nm	0.5W	780-HP or PM780	780-HP or PM780	0.5m	250μm Bare Fiber	None
808nm	1W	Hi1060 or PM980	Hi1060 or PM980	1.0m	900μm Loose Tube	LC/UPC
830nm	3W	SMF-28e or PM1300	SMF-28e or PM1300	1.5m		LC/APC
850nm	5W	SMF-28e or PM1550	SMF-28e or PM1550	2.0m		SC/UPC
980nm	10W	SM1950 or PM1950	SM1950 or PM1950			SC/APC
1030nm						FC/UPC
1064nm						FC/APC
1310nm						ST/UPC
1480nm						ST/APC
1550nm						
1950nm						
2000nm						
2050nm						