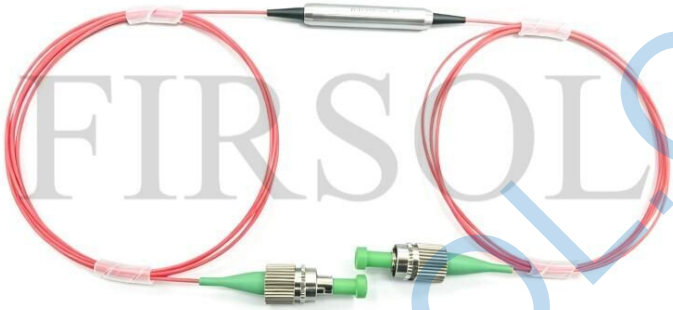
Polarization Maintaining In-Line Faraday Rotator



Description

Polarization Maintaining In-Line Faraday Rotator is a PM fiber-pigtailed optical device designed to rotate the polarization state of input light by 45° at the output. It is used in polarization-maintaining fiber systems where stable polarization control and axis alignment are required.

Features

Low Insertion Loss
High Extinction Ratio
Compact Structure
High Stability and Reliability

Applications

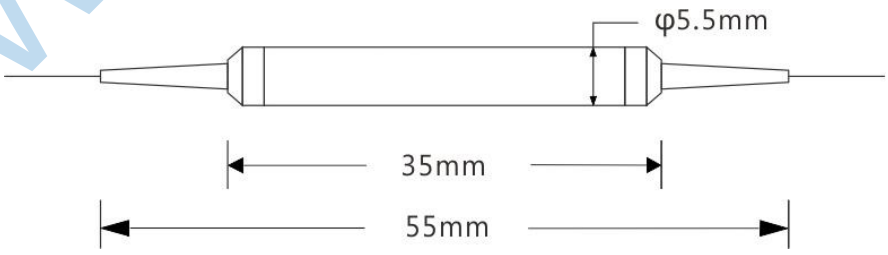
Fiber Laser
Fiber Amplifier
Fiber Optic Sensing
Fiber Interferometer

Specifications

Parameter	Unit	Value				
Center Wavelength	nm	1030	1064	1310	1480/1550	1950/2000/2050
Operating Wavelength Range	nm	±5	±5	±30		±30
Insertion Loss (Max.)	dB	3.0	1.7	0.6		0.8
Return Loss (Min.)	dB	50				
Faraday Rotation Angle (Single Pass)	°	45				
Rotation Angle Tolerance	°	±3	±3	±1		±2
Extinction Ratio (Min.)	dB	20				
Max Optical Power (CW)	mW	50	150	500		300
Fiber Type	-	PM980	PM980	PM1300	PM1550	PM1950
Package Dimensions	mm	Φ5.5 x L35				
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

□nm	□mW	□	□m	□μm	□
Center Wavelength	**Max Optical Power (CW)**	**Fiber Type**	**Pigtail Length**	**Pigtail Diameter**	**Connector**
1030nm	50mW	PM980	0.5m	250μm Bare Fiber	None
1064nm	150mW	PM1300	1.0m	900μm Loose Tube	LC/UPC
1310nm	300mW	PM1550	1.5m		LC/APC
1480nm	500mW	PM1950	2.0m		SC/UPC
1550nm					SC/APC
1950nm					FC/UPC
2000nm					FC/APC
2050nm					ST/UPC
					ST/APC