

Polarization Maintaining Components

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# **Key Features**

- Low insertion loss
- Excellent stability and reliability
- High power handling

**Applications** 

Fiber laser Fiber amplifier Communications

## 2050nm In-line Faraday Rotator

The In-line Faraday Rotator is characterized with low IL, high return loss, high extinction ratio and excellent environmental stability and reliability. It is with fiber in and fiber out. They are ideal for polarization maintaining fiber amplifiers, fiber lasers, and high-speed communication system and instrumentation applications.



# For more Info

#### Please contact us at:

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# **Package Dimension**



\*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.





#### 2050nm In-line Faraday Rotator

#### **Performance Specifications**

Parameter			Unit	Values	
Center Wavelength			nm	2050	
Operating Bandwidth			nm	±30	
Faraday Rotation Angle (Single Pass)			degree	45 or 90	
Rotation Angle Tolerance over Wavelength and Temperature			degree	±2.0	
Max. Insertion		45 deg.	dB	0.8	
	1 LOSS	90 deg.	dB	1.0	
Min. Extinction Ratio			dB	20	
Min. Return Loss			dB	≥50/50	
Max. Optical Power			mW	300	
	Option 1: PM→PM		-	PM1550/PM1950→PM1550/PM1950	
Fiber Type	Option 2: SM→PM			SMF-28e/SM1950→PM1550/PM1950	
	Option 3: SM→SM			SMF-28e/SM1950→SMF-28e/SM1950	
Operation Temperature			°C	-5 ~ +70	
Storage Temperature			°C	-40 ~ +85	
Dimensions			mm	Ø5.5xL35	

1. Above specifications are for device without connector.

2. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower. The default connector key is aligned to slow axis. Power transmits through the connector less than 2W.

3. Higher power up to 20W is possible; please contact DK Photonics for details.

4. Default fiber is SMF-28e/PM1550 for 2um.

#### Order information P/N: ILFR-①-②-③-④-⑤-⑥

When you inquire, please provide the correct P/N number according to our ordering information, and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250µm bare fiber pigtail.

1	2	3	4	5	6
Wavelength	Angle	Fiber Type	Pigtails Diameter	Fiber Length	Connector
2050:2050nm	45:45°	1: Option 1	25:250µm bare fiber	05:0.5m	00: None
XX: Others	90:90°	2: Option 2	90:900µm Loose Fiber	10:1.0m	FP: FC/PC
		3: Option 3	XX: Others	15:1.5m	FA: FC/APC
				XX: Others	XX: Others

#### Part Number Example: ILFR-2050-45-1-90-10-FA

**Description:** 2050nm in line Faraday Rotator, faraday rotation angle: 45°, PM1950 fiber in and PM1950 fiber out, with 0.9mm OD loose tube, 1.0m length fiber pigtails, FC/APC connectors at all ports.

### **Ordering Information for Custom Parts**

If you need to customize other specifications, please provide detailed description for your requirement.