





- Low Insertion Loss
- High Return loss
- Epoxy Free Optical Path

980nm PM fiber TGG Faraday Mirror

The Faraday Mirror is a passive device that provides 45- or 90-degree rotation regarding to the polarization state of the input light. It is a fiber optic polarization rotation mirror designed for fiber optic networks and measurement applications. The device can help to eliminate polarization sensitivity of an optical fiber system. Applications include eliminating polarization induced fluctuations in fiber interferometers, Brillouin amplifier systems, fiber laser systems, and fiber optic antenna remoting systems. Our Faraday Mirror is optical path epoxy free and thus offers low insertion loss and high temperature stability.

Applications

- Fiber Optical Amplifier
- Fiber optic Systems Testing



For more Info

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Package Dimensions



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





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Performance Specifications

| Parameter | Unit | Values | |
|--|--------|--------------------|--|
| Center Wavelength | nm | 980 | |
| Operating Bandwidth | nm | ±5 | |
| Max. Insertion Loss | dB | 0.8(Typ. 0.5) | |
| Faraday Rotation Angle (Single Pass) | degree | 45 | |
| Rotation Angle Tolerance over Wavelength and Temperature | degree | +/-3.0 | |
| Min. PER | dB | 18 | |
| Max. Optical Power | W | 0.5, 1, 3, 5, 10 | |
| Fiber Type | - | PM980-XP, or other | |
| Operation Temperature | °C | -5 ~ +70 | |
| Storage Temperature | °C | -40 ~ +85 | |
| Dimensions | mm | 46x28x26 | |

1. Above specification are for device without connector, and may change without notice.

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

Order information P/N: PMIGGFM-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 | Faraday Rotation Angle | Optical Power | Pigtails Diameter | Fiber Length | Connector |
| 98:980nm | 45:45° | L:<0.5W | 25:250µm bare fiber | 05:0.5m | 00: None |
| XX: Others | | 1:1W | 90:900µm Loose Fiber | 10:1.0m | FP: FC/PC |
| | | 3:3W | XX: Others | 15:1.5m | FA: FC/APC |
| | | 5:5W | | XX: Others | XX: Others |

Part Number Example: PMTGGFM-98-45-1-25-10-00

Description: 980nm PM TGG Faraday Mirror, Faraday rotation angle: 45°, 1W power, PM980-XP fiber, with bare fiber, 1.0m length fiber pigtails, and no connectors at all ports.

Ordering Information for Custom Parts

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