

1053nm High Power Free Space Faraday Rotator&Isolator

A Faraday rotator is an optical device that rotates the polarization of light due to the Faraday effect, which is based on a magneto-optic effect. This magnetic rotation phenomenon is first discovered in 1845 by the Faraday. It is known as the Faraday effect. The rotating angle of vibrating surface is called the angle of Faraday effect rotation. The amount of polarization rotation is $\theta = VBL$, θ is also the polarization rotation angle, V = Verdet constant of optical element, B = longitudinal component of magnetic intensity vector, L = length of optical length of optical element.

◆ Application

- Multi-level laser amplifier
- Optical parametric oscillator
- Ring laser
- Erbium-doped fiber amplifier
- Seed injecting laser
- Optical switch
- Optical modulator

◆ Feature

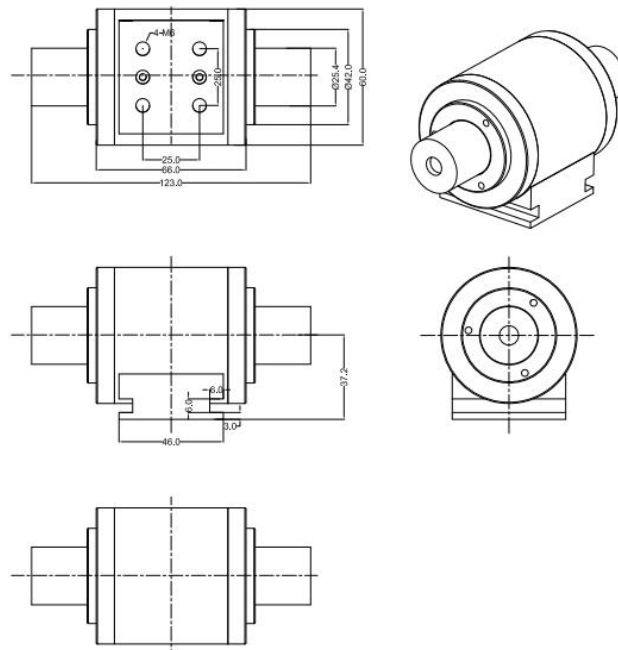
- Wavelength range 1010-1090nm
- Glan laser prisms with double escape windows
- High power application

Part No.: HFR-8-1053-HP-66x60x60-SD

◆ Specification:

Parameters	Unit	Values
Center Wavelength(λ_c)	nm	1053
Operating Wavelength Range	nm	± 10
Magneto-optics material	-	TGG
Rotation Angle	$^\circ$	45 ± 2
Transmission@ λ_c	%	≥ 98
Clear Aperture	mm	8 Or Specify
Damage Threshold	J/cm ²	10
Operating Temperature	$^\circ\text{C}$	10 to 30
Storage Temperature	$^\circ\text{C}$	-20 to 70

◆ Package Dimension:



*Remark: The above dimension is for $\phi 8$ mm Faraday Isolator. For $\phi 8$ mm Faraday Rotator, the dimension is same but without both sides of the Glan Prism.