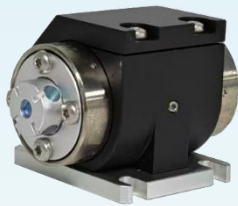


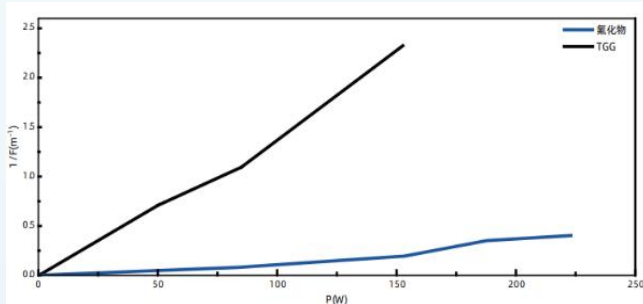
Free-space isolators fall into two categories: polarization-dependent and polarization-independent types. The polarization-dependent isolator, also known as a Faraday isolator, mainly consists of three components: a polarizer, a Faraday rotator, and an analyzer (whose transmission axis is oriented at 45° relative to that of the polarizer). The polarization-independent isolator is primarily composed of birefringent crystals (or polarizers), a Faraday rotator and a half-wave plate. It is commonly deployed in fiber lasers to effectively maintain the stability of optical systems.

A Faraday optical isolator is a one-way optical shutter based on the magneto-optic non-reciprocal effect, serving as a critical component to block backward-propagating light beams. Its core assembly comprises a Faraday rotator and a pair of polarizers. Faraday optical isolators are widely adopted in all high-performance laser systems, precision measurement systems and communication systems. They protect laser sources from interference by reflected light and guarantee stable operation.

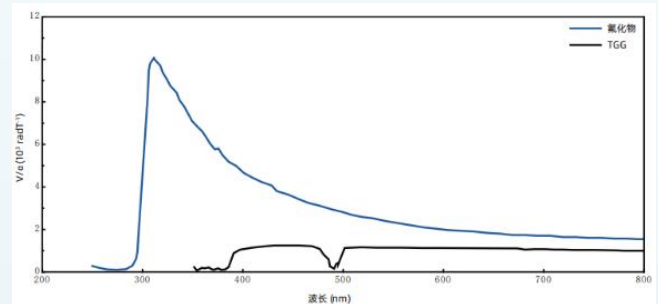


◆ Product Advantages & Features

1. Adopts high-quality magneto-optic crystals with low absorption and low insertion loss.
2. High isolation and high transmittance.
3. Broad transmission bandwidth and high laser-induced damage threshold (LIDT).
4. Custom large-aperture options available ($\Phi 10$ mm, 15 mm, 20 mm, 25 mm, etc.).



Ultra-low absorptivity



ultra-high transmittance

◆ Parameters

Center Wavelength	Clear Aperture	Isolation / Transmittance@25°C	Laser-Induced Damage Threshold@1064nm
UV Range 308/343/355nm	2.5mm	Isolation ≥ 30 dB Transmittance $> 90\%$	$> 10\text{J}/\text{cm}^2, 10\text{ns}, 10\text{hz}$
Visible Range 405/450/488/532/633/780/785/795nm	2.5/5mm		
IR Range 852/920nm	2.5/5mm		
1030/1064nm	3/5/8/10/12/15/20mm		

Note: Standard packaging options include free-space and fiber-collimated types. Custom packaging is also available for compact isolators, large-aperture isolators and other configurations.