TORNOS

Faraday Rotators and Isolators – 500 nm to 1010 nm

The Coherent TORNOS Faraday Rotators rotate the plane of polarized light 45° in the forward direction and an additional 45° of non-reciprocal rotation in the reverse direction while maintaining the light's linear polarization. When placed between crossed polarizers, a Faraday rotator becomes an optical isolator.

An optical isolator provides high transmission in the forward direction and strongly attenuates any light traveling in the reverse direction, effectively protecting laser diodes from the deleterious effects of back reflections.

TORNOS Optical Isolators come with polarizing beam splitter cube polarizers. By aligning the output polarizer orthogonal to the backward traveling light, isolation can be maximized within the usable wavelength range of the optical isolator.

FEATURES

- Wavelength tunability
- Attain 60 dB using two isolators in series
- Mounting clamp
- All isolators contain rejected beam escape ports

APPLICATIONS

- Environmental Sensing
- Microscopy
- Spectroscopy
- DNA Sequencing
- Laboratory and R&D use
- Protecting pump lasers in amplified systems

OPTIONS

- Input/Output waveplates available
- Customization available

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Isolators				
Center Wavelength (nm)	Spectral Range (nm)	Isolation at 22°C[1] (dB)	Transmission at 22°C[2] (%)	Damage Threshold
532	500 to 600	≥27	>88	1 J/cm^2 at 10 ns
650	600 to 680	≥27	>88	1 J/cm^2 at 10 ns
780	730 to 830	≥27	>88	1 J/cm^2 at 10 ns
850	830 to 950	≥27	>88	1 J/cm^2 at 10 ns
980	950 to 1010	≥27	>88	1 J/cm^2 at 10 ns

Notes:
1. When tuned for maximum Isolation.
2. At center wavelength.

Medium Power Isolator Transmission by Model