

MAKROS

Faraday Rotators and Isolators - 1900 nm to 2100 nm

The MAKROS line of Faraday devices builds on over 30 years of experience in successfully protecting lasers from destabilizing and potentially damaging back reflections. These products have been specifically designed to meet the needs of high power and high energy 2 μm (1900 nm to 2100 nm) lasers.

Our MAKROS rotators and isolators deliver industry-best laser reliability and performance while providing superior isolation and maintaining very high transmission.

Our MAKROS products rely on the Faraday effect from high Verdet constant, low absorption materials to rotate the plane of linearly polarized light in the forward direction and an additional 45° of non-reciprocal rotation in the reverse direction. When these Faraday rotators are placed between crossed polarizers, they can be used as a Faraday Isolator. The MAKROS is available as a rotator or an isolator.



FEATURES

- Completely passive; no tuning required
- Rugged design suitable for harsh operating environments
- Specified performance to 30 W
- Optically contacted PBS cubes for improved damage threshold
- All isolators contain escape ports

APPLICATIONS

- Ho or Tm lasers
- High Harmonic Conversion
- High Energy Physics
- Biological and Medical Systems, Research, and Device Manufacturing
- Ultrafast R&D
- Microelectronics
- Micromachining
- Particle Acceleration

OPTIONS

- Input/output waveplates
- Precision mounting
- Customization

Attalon

Specifications	Rotator	Isolators ¹
Clear Aperture (mm)	4	4
Transmission at 22 °C (%)	>95	>92
Isolation at 22 °C (dB)	N/A	>30
Pulsed Damage Threshold (J/cm ²)	5 at 10 ns	5 at 10 ns
Power Handling (W)	30	30

- Notes:
1. Escape ports should be used if rejected light is > 1 W or 0.15 J/cm² at 10 ns. All stray beams should be terminated.
 2. Return loss-free working distance ≥ 25 mm for a collimated beam.

