

The Coherent PAVOS 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 1  $\mu\text{m}$  (1010 nm to 1080 nm) lasers.

Our PAVOS rotators and isolators deliver industry-best laser reliability and performance while providing superior isolation and maintaining very high transmission. Our PAVOS 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. The PAVOS is available as a rotator or an isolator.



### Features

- Completely passive; no tuning required
- Rugged design suitable for harsh operating environments
- Specified performance to 50 W; tested to >400 W
- Optically contacted PBS cubes for improved damage threshold
- All isolators contain rejected beam escape ports
- Input polarization adjustability

### Options

- Input/Output waveplates available
- Precision mounting available
- Precision rejected beam pointing available
- Customization requests encouraged

### Applications

- Ultrafast, pulsed, and CW lasers
- Microelectronics
- Medical Systems and Device Manufacturing
- Micromachining
- Particle Acceleration

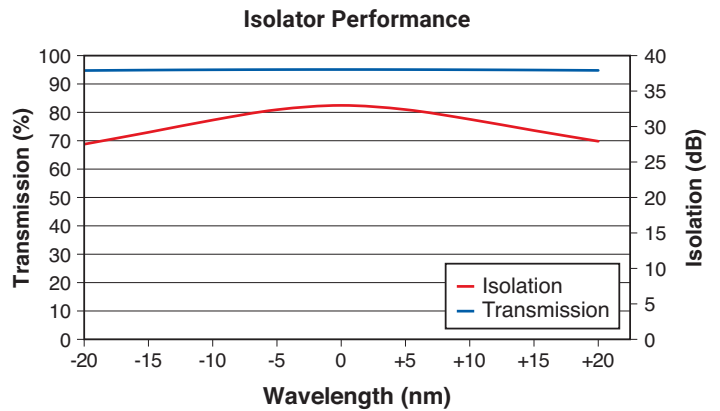
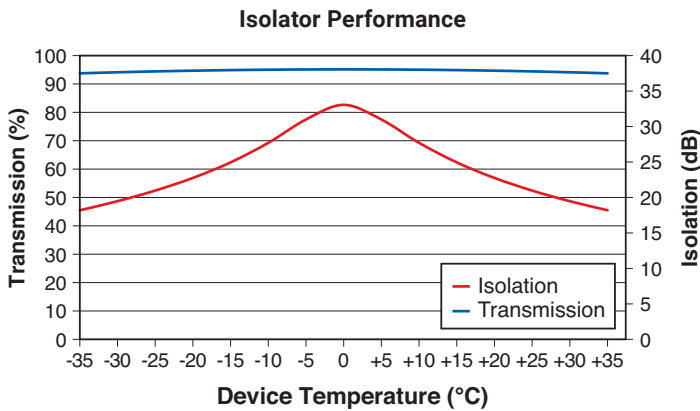
## SPECIFICATIONS

	Small Aperture Rotators	Small Aperture Isolators <sup>1</sup>	Large Aperture Rotators	Large Aperture Isolators <sup>1</sup>
Clear Aperture (mm)	2, 5	2, 5	8, 12, 15, 20, 25, 35, 45	8, 12, 15, 20, 25, 35, 45
Peak Transmission (%)	>98	>95	>98	>92
Peak Isolation (dB)	720 to 950	720 to 950	720 to 950	720 to 950
Peak Rotation (°)	N/A	>33 (typical >37)	N/A	>30 (typical >35)
Damage Threshold <sup>2</sup>	10 J/cm <sup>2</sup> at 10 ns 1 J/cm <sup>2</sup> at 8 ps 1 MW/cm <sup>2</sup> CW	10 J/cm <sup>2</sup> at 10 ns 1 J/cm <sup>2</sup> at 8 ps 1 MW/cm <sup>2</sup> CW	10 J/cm <sup>2</sup> at 10 ns 1 J/cm <sup>2</sup> at 8 ps 1 MW/cm <sup>2</sup> CW	10 J/cm <sup>2</sup> at 10 ns 1 J/cm <sup>2</sup> at 8 ps 1 MW/cm <sup>2</sup> CW
Storage Temperature Range (°C)	-40 to 70	-40 to 70	-10 to 60	-10 to 60
Factory Tunable Temperature Range (°C)	10 to 30	10 to 30	Upon request	Upon request
Isolated Beam Pointing <sup>3</sup> (°mrad)	N/A	<5	N/A	Upon request

<sup>1</sup> Escape ports should be used if rejected light is >1 W or 0.15 J/cm<sup>2</sup> at 10 ns or forward light is >25 W. All stray beams should be properly terminated.

<sup>2</sup> At customer-specified wavelength and temperature

<sup>3</sup> Input cube only



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. All products are RoHS compliant.

Coherent offers a limited warranty for all PAVOS Rotators and Isolators. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative. Copyright ©10/21 Coherent, Inc.