

4 mm PAVOS+

Faraday Rotators and Isolators
1010 nm to 1080 nm

Designed to meet the demanding performance required from today's solid state lasers, the new 4 mm PAVOS+ is ideal for preventing feedback and back reflections.

The new 4 mm PAVOS+ isolator builds on the existing line of PAVOS isolators adding flexibility and performance at a competitive price.

Improved Performance

- Minimum isolation increases from 30 dB to 33 dB with typical isolation exceeding 37 dB
- Improved thermal lens due to shorter rotator material¹
- 2° tipped parallelogram PBS cubes for improved back reflection protection and perpendicular rejected beams
- Tunable for laser power and operating temperature

Features

- Completely passive; no tuning required
- Stable performance to 50 W
- Optically contacted PBS cubes for improved damage threshold
- Input polarization adjustability

Options

- Optional waveplate on the output
- Precision mounting available
- Precision rejected beam pointing available
- Customization requests encouraged

Applications

- Elimination of ASE in amplified systems, including CPA, MOPA, and regeneratively amplified mode-locked lasers
- Protecting lasers from back reflection caused by illuminating highly reflective materials
- Preventing frequency instability in seed lasers and other single frequency lasers



SPECIFICATIONS

	PAVOS+ Rotators	PAVOS+ Isolators ²
Clear Aperture (mm)	4	4
Peak Transmission (%)	>98 ³	>95 ³
Peak Isolation (dB)	N/A	>33 ³
Peak Extinction (dB)	≥33 ³	N/A
Peak Rotation (°)	45 ±2.0	45 ±2.0
Damage Threshold ²	10 J/cm ² at 10 ns 1 J/cm ² at 8 ps 1 MW/cm ² CW	10 J/cm ² at 10 ns 1 J/cm ² at 8 ps 1 MW/cm ² CW
Storage Temperature Range (°C)	-20 to 60	-20 to 60
Factory Tunable Temperature Range (°C)	10 to 28 ⁴	10 to 30 ⁴

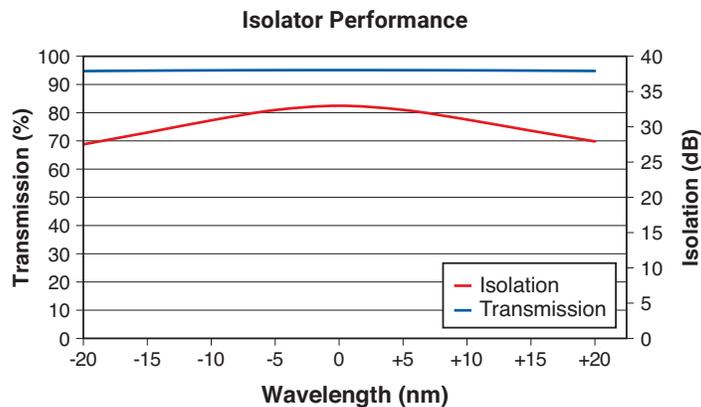
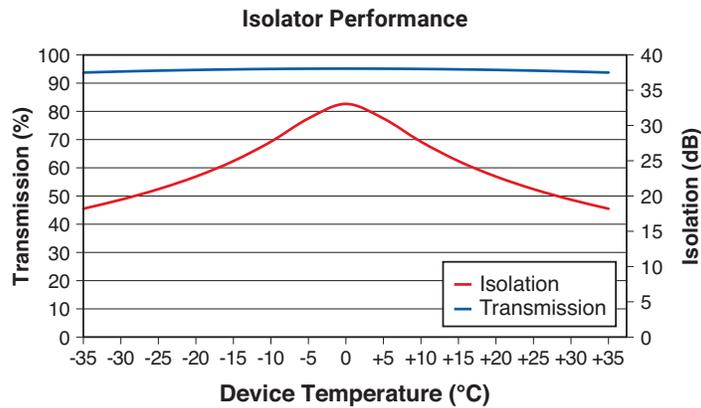
1 See technical bulletin, Advantages of the PAVOS Product Line.

2 Escape ports should be used if rejected light is >1 W or 0.15 J/cm² at 10 ns or forward light is >25 W. All stray beams should be properly terminated.

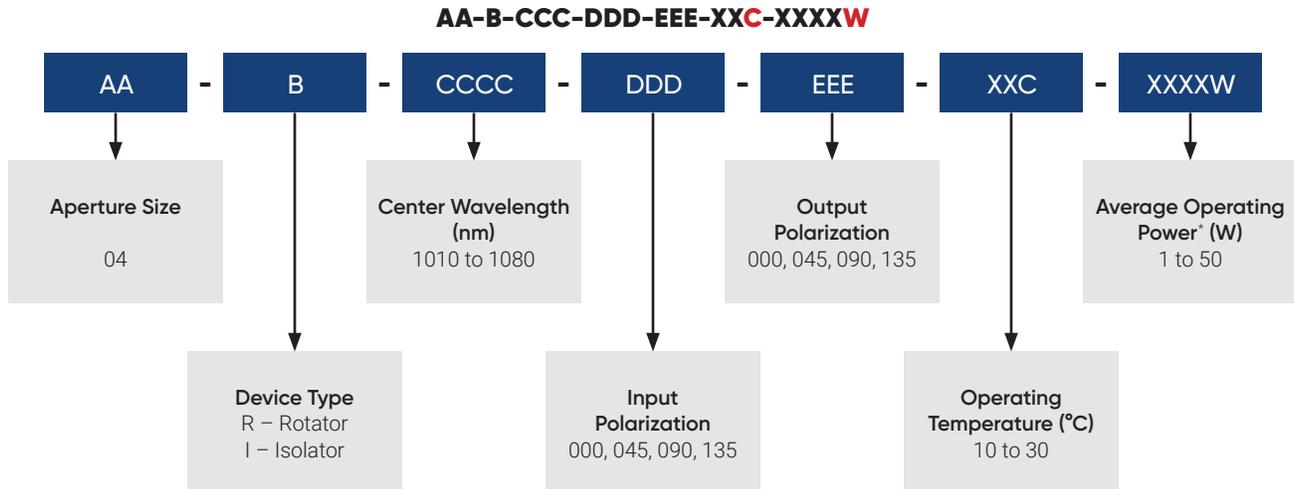
3 At customer-specified wavelength and temperature.

4 Tunable Temperature Range applies to wavelengths 1010 nm to 1064 nm. >1064 nm is 22 °C.

NOTE: Devices will be tuned for a default operating temperature of 22 °C and a default operating power of 1 W unless otherwise specified by customer.



MODEL NUMBER SCHEME



AA: Aperture

B: Device Type

CCC: Wavelength (nm)

DDD: Input Polarization - N/A for Rotators. Defaults to 000 (horizontal) unless otherwise specified.

EEE: Output Polarization - N/A for Rotators. Defaults to 045 (45° clockwise from input) unless otherwise specified.**

XXC: Nominal Operating Temperature - Defaults to 22C (22 °C) unless otherwise specified.

XXXXW: Nominal Operating Average Power - Defaults to 0001W (1 W) unless otherwise specified.

* Power levels above 50 W may result in a change in specification. Contact EOT to discuss.

** The addition of a waveplate will add an additional 45° or 135° of rotation through the device.



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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 4 mm PAVOS+ Rotators and Isolators. For full details of this warranty coverage, please refer to the Service section at www.coherent.com or contact your local Sales or Service Representative. Copyright ©10/21 Coherent, Inc.