



Electro-Optics Technology, Inc.

Innovative High Quality
Laser Solutions

TORNOS Compact

Optical Isolators

405 nm to 1064 nm



EOT's TORNOS Compact optical isolators are designed for wide-ranging end applications where optical feedback can adversely affect laser performance. TORNOS Compact isolators provide high transmission in the forward direction while strongly attenuating light traveling in the reverse direction, protecting lasers from the deleterious effects of back reflections.

Our TORNOS Compact isolator solutions deliver industry-best laser reliability and performance. The TORNOS family of isolators covers a broad range of wavelengths - from the UV at 400 nm to the near-infrared at 1064 nm. A range of isolators is available which allow for optimal isolation and transmission at specific wavelengths, depending on the model, and within the spectral bandwidth of the isolator. Our standard models are available at wavelengths common to many applications. We can also supply the TORNOS Compact optimized for non-standard wavelengths upon request.

Some common applications for the TORNOS Compact are the elimination of frequency instability in single frequency lasers such as laser diodes and OPSLs, the prevention of mode-hopping in external cavity diode lasers, and the elimination of parasitic oscillations due to ASE in amplified laser systems.

TORNOS Compact isolators contain optically contacted polarizing beam splitter cubes resulting in high transmission as compared to other available isolators. The TORNOS Compact's industry-leading high transmission results in more photons for your application. This allows diodes to be run at lower currents extending diode lifetime. The compact design makes it highly suitable for OEM integration.

FEATURES

- High transmission
- Extends the life of your diode
- Compact design

OPTIONS

- Optional waveplate for manipulation of polarization
- Mounting Clamp Available
- Customization available

APPLICATIONS






- Raman Spectroscopy
- DNA Sequencing
- Imaging
- Environmental Sensing
- Mapping
- Microscopy
- 3D Metrology
- Protecting pump lasers in amplified systems



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AVAILABLE MODELS

Model	Product	Wavelength Range
	2 mm VIS Isolator ^a	405 nm to 600 nm
	4 mm VIS Isolator ^a	405 nm to 600 nm
	2 mm NIR Isolator	600 nm to 800 nm
	4 mm NIR Isolator	600 nm to 800 nm
	2 mm NIR+ Isolator	800 nm to 1064 nm

^a 488 nm not available

NOTE: Customer can specify any center wavelength that falls within the ranges outlined in the above chart.

SPECIFICATIONS

Standard Wavelength	Spectral Range	Tunable Temperature	Isolation ^a	Transmission ^a	Forward Power Handling
405 nm	395 nm to 415 nm	10 °C to 30 °C	>33 dB	>90%	5 W
532 nm	522 nm to 542 nm	10 °C to 30 °C	>33 dB	>95%	5 W
561 nm	551 nm to 571 nm	10 °C to 30 °C	>33 dB	>95%	5 W
638 nm	628 nm to 648 nm	10 °C to 30 °C	>33 dB	>95%	5 W
660 nm	650 nm to 670 nm	10 °C to 30 °C	>33 dB	>95%	5 W
730 nm	720 nm to 740 nm	10 °C to 30 °C	>33 dB	>95%	5 W
785 nm	775 nm to 795 nm	10 °C to 30 °C	>33 dB	>95%	5 W
920 nm	910 nm to 930 nm	10 °C to 30 °C	>33 dB	>95%	5 W
1064 nm	1054 nm to 1074 nm	10 °C to 30 °C	>33 dB	>95%	5 W

Product specifications are subject to change. All products are RoHS compliant.

^a At specified wavelength and temperature

NOTE: There is a decreased performance between the 400 nm and 500 nm wavelengths. Please see the below transmission curves. Spectral bandwidth is dependent upon wavelength. Contact EOT for more information.

