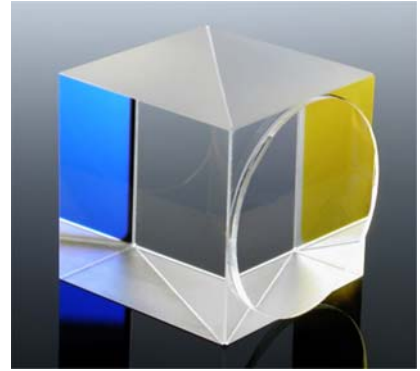
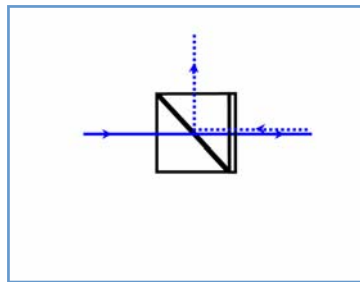


Optical Isolators



These optical isolators consist of a polarizing beamsplitter cube to which a quartz quarter waveplate has been cemented. Light transmitted by the beamsplitter is p-polarized and then converted by the waveplate to circularly polarized. Any return beam is converted to s-polarized light by the waveplate and rejected by the splitter. This type of isolator is ideal for free-



space use in a laser system. It is easy to mount and requires no complex setup.

Optical isolators are narrow-band devices operating best at the laser wavelength and a narrow region around it. They are anti-reflection coated for the laser wavelength of interest. Isolation of the return beam is at least 35dB and transmittance of the p-component is about 95%.

These isolators are only suitable for lasers of fluence up to $1\text{J}/\text{cm}^2$ (10ns) due to the cement interface. Optically contacted isolators should be requested for use with high power lasers.

Most visible

and near infra-red laser types can be accommodated including the following wavelengths: 442, 488, 515, 527, 532, 633, 670, 680, 694, 780, 830, 905, 1047, 1053, 1064, 1310, 1319, 1540, 1550 nm.

Optical isolators may be supplied as 10, 12.7, 20 or 25.4 mm cubes but other sizes can be supplied on request.

Typical Specifications

Material:	BK7A and Quartz
Transmitted wavefront:	$\lambda/4$ @ 633nm
Surface quality:	20-10
Beam deviation:	3 arcmin
Dimensions:	+/- 0.2 mm
Waveplate thickness:	~ 2mm
AR coating:	<0.25% per face
Transmission of p-pol:	> 95%
Isolation:	> 35dB
Clear aperture:	>85%
Laser Damage Threshold:	$1\text{J}/\text{cm}^2$, 10ns

To request a quote or to order, please specify:

Quantity — Cube Size — Laser Wavelength

Optarius

PO Box 2271
Malmesbury SN16 9FA
United Kingdom

Optics for Lasers

Phone: +44 1666 575185
Fax: +44 1666 577424
Email: optarius@optarius.com
Web: www.optarius.com

For a quotation — please phone, fax or email us with details of your requirements.