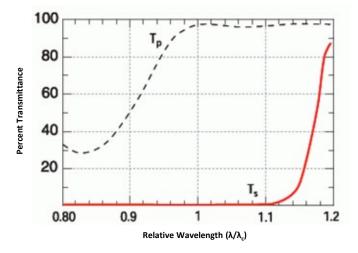
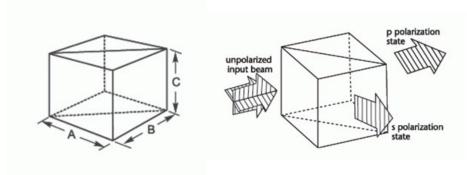
meadowlark optics

Laser Line Beamsplitting Polarizer

Right-angle prisms are matched in pairs to produce high quality laser line beamsplitting polarizers with superior wavefront quality in both transmission and reflection. The hypotenuse face of one prism is coated with a multilayer dielectric beamsplitting coating optimized for laser performance. Two prisms are cemented together, protecting the critical coating from performance-degrading environmental factors. Each cube separates an unpolarized incident beam into two orthogonal, linearly polarized components with negligible absorption. Following the principle of pile-of-plates polarizers, p-polarized light is transmitted with approximately 1000:1 contrast. These polarizers perform best with collimated or near-collimated light.

Typical Performance of a Laser Line Beamsplitting Polarizer





Beamsplitting polarizers provide two orthogonally polarized beams, conveniently separated by 90°



Key Features

High contrast

Low reflectance

Low transmitted wavefront distortion

Polarization Suite

Linear Polarizers

Precision Linear Polarizer High Contrast Linear Polarizer Ultra-High Contrast Linear Polarizer Glan-Thompson Polarizer Ultra Broadband Polarizer MWIR Polarizer Deep Ultraviolet Polarizer

Beamsplitting Polarizers

Wire Grid Versalight Polarizer Wire Grid Versalight Beam Splitter Laser Line Beamsplitting Polarizer Broadband Beamsplitting Polarizer Polarizing Bandpass Filter

Circular Polarizers

Dichroic Circular Polarizer Beam Separator



SPECIFICATIONS	
Substrate	N-BK7
Surface Flatness (P-V @ 632.8 nm)	≤ $\lambda/4$ for p-polarized beam
Surface Quality	40 – 20 scratch-dig
Beam Deviation	
Transmitted	≤ 3 arc-min
Reflectance (per surface)	≤ 0.25%
Contrast Ratio	
Transmitted	≥ 1,000:1
Transmission	
p-polarized light s-polarized light	≥ 95% transmitted ≥ 99.8% reflected
Storage Temperature	-50°C to + 80°C
Operating Temperature	-50°C to + 80°C
Laser Damage Threshold	≥ 0.5 J / cm2, 10 ns

ORDERING INFORMATION	
Dimensions ± 0.020 in. (± 0.51 mm)	Part Number
0.50 × 0.50 × 0.50 (12.7 × 12.7 × 12.7 mm)	$BP - 050 - \lambda$
1.00 × 1.00 × 1.00 (25.4 × 25.4 × 25.4 mm)	BP – 100 – λ

Please substitute your wavelength in nanometers for λ Custom sizes and wavelengths, over 400-1600 nm are available. Call us for pricing on nonstandard wavelengths, sizes, or shapes.