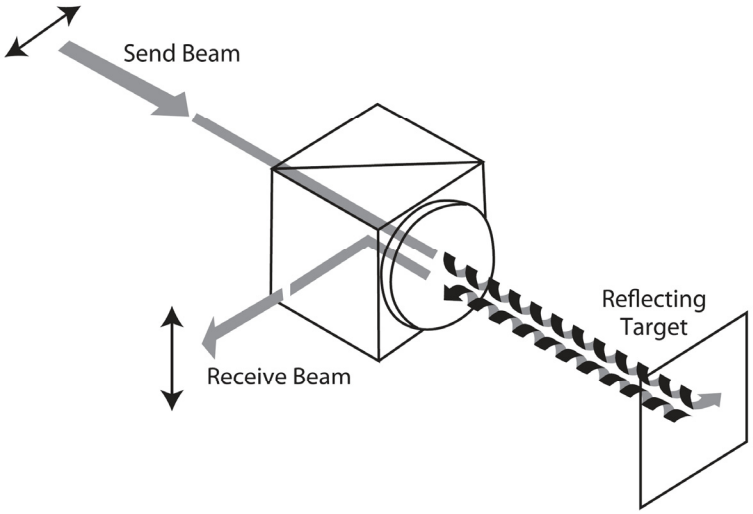
Beam Separator

Meadowlark Optics' Beam Separators are designed for laser line applications and consist of a true zero-order quarter-wave retarder aligned with its fast axis at 45° to the transmission axis of a Laser Line Beamsplitting Polarizer.

The transmitted beam is circularly polarized, regardless of the input beam polarization state. Our true zero-order Precision Retarders are quarter-wave within ± λ/350 and aligning the fast axis to within 1° ensures greater than 99.8% source isolation from specular back reflections.

Beam Separator function



Key Features

- High isolation
- Large diameters available
- 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	
Material	BK 7 Grade A, fine annealed
Transmitted Wavefront Distortion (at 632.8 nm)	≤ λ/5
Clear Aperture	Central 80% diameter
Reflectance (per surface)	≤ 0.5% at normal incidence
Surface Quality	40 – 20 scratch-dig
Beam Deviation	≤ 3 arc min
Acceptance Angle	± 2˚
Standard Wavelengths	532, 632.8, 670, 780, 850, 1064 and 1550 nm
Dimensional Tolerance	±0.020 in.
Temperature Range	-20˚C to + 50˚C
Recommended Safe Operating Limit	500 W/cm^2 , CW 300 mJ/cm^2 , 10 ns, visible 200 mJ/cm^2 , 10 ns, 1064 nm

ORDERING INFORMATION

Cube Dimensions in. (mm)	*Clear Aperture in. (mm)*	*Part Number*
0.50 (12.7 mm)	0.40 (10.16 mm)	BS – 050 – λ
1.00 (25.4 mm)	0.80 (20.32 mm)	BS – 100 – λ

Please substitute your wavelength in nanometers for λ.

Custom sizes and wavelengths over 400-1600 nm are available. Please contact your Meadowlark Optics Sales Engineer for more information.