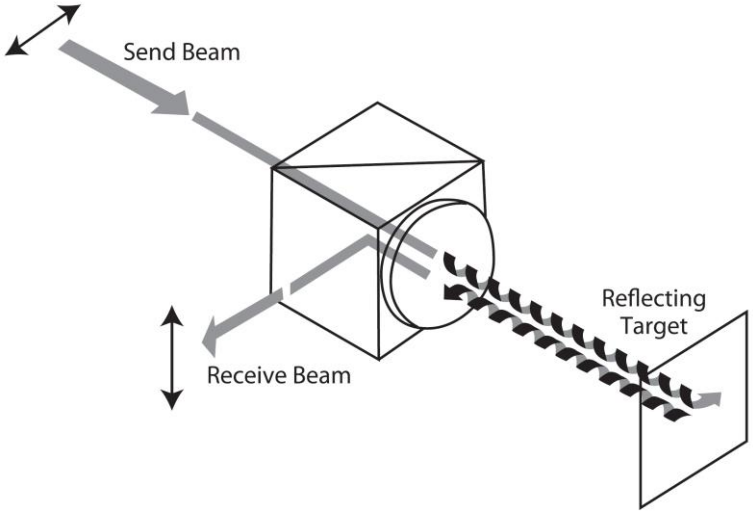
# Beam Separator

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<br>300 mJ/cm$^2$ , 10 ns, visible<br>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.*

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