

High Contrast Linear Polarizer

In response to the need for improved contrast in the near infrared region, Meadowlark Optics now offers a line of High Contrast Linear Polarizers. These polarizers are constructed by laminating Polarcor™ dichroic glass polarizers between high quality glass substrates to achieve improved wavefront performance and surface quality.

Meadowlark Optics High Contrast Linear Polarizers offer the performance of calcite polarizers in large apertures. Contrast ratios are available as high as 10,000:1. Custom wavelength ranges from 630 to 1580 nm with 60 to 80 nm bandpasses and sizes from 10 to 25 mm are available.

Please contact a Meadowlark Optics Sales Engineer to discuss your specific application.



Key Features

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- Very high contrast
- High transmission
- Absorptive dichroic glass

Polarization Suite

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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

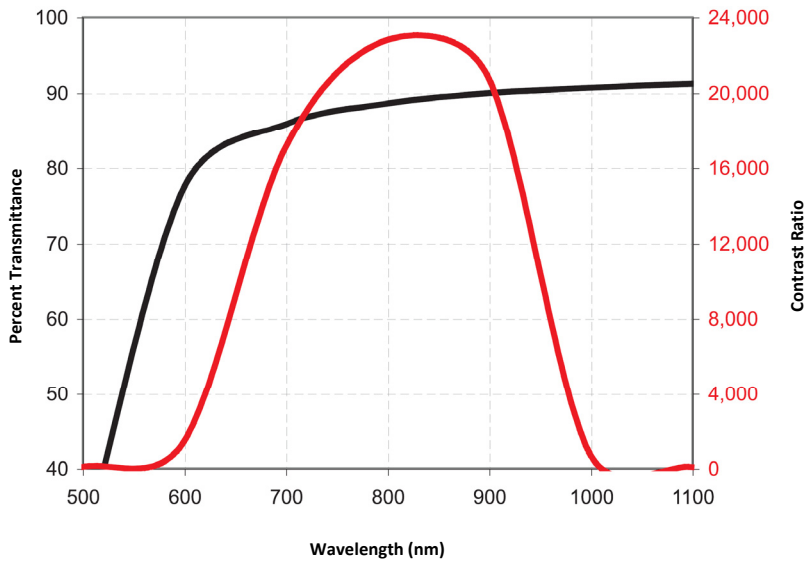
Beamsplitting Polarizers

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

Circular Polarizers

- Dichroic Circular Polarizer
- Beam Separator

Typical transmission for a High Contrast Linear Polarizer centered at 800 nm



Extinction ratio is measured with a Glan-Thompson polarizer.



SPECIFICATIONS

Polarizer Material	Dichroic Glass
Substrate Material	BK 7 Grade A, fine annealed
Transmitted Wavefront Distortion (at 632.8 nm)	$\leq \lambda/4$
Surface Quality	40 – 20 scratch-dig
Beam Deviation	≤ 3 arc min
Reflectance (per surface)	$\leq 0.5\%$ at normal incidence
Temperature Range	-50°C to +70°C
Recommended Safe Operating Limit	1 W/cm ² , CW 200 mJ/cm ² , 20 ns, visible 2 J/cm ² , 20 ns, 1064 nm

Prolonged exposure to strong ultraviolet radiation may damage these polarizers.

ORDERING INFORMATION

<i>Diameter in. (mm)</i>	<i>Clear Aperture in. (mm)</i>	<i>Thickness in. (mm)</i>	<i>Wavelength Range</i>	<i>Part Number</i>
1.00 (25.4 mm)	0.40 (10.16 mm)	0.25 (6.35 mm)	Please specify	PPM – 050 – λ
1.00 (25.4 mm)	0.70 (17.78 mm)	0.35 (8.89 mm)	Please specify	PPM – 100 – λ

Custom sizes are available. Please contact your Meadowlark Optics sales engineer for assistance.