

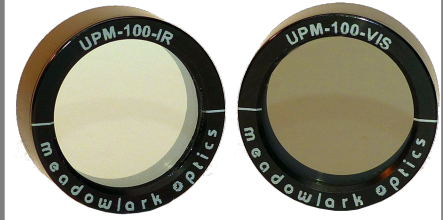
Ultra-High Contrast Linear Polarizer

Our UHP-UV series polarizers offer high contrast in the UV from 360 to 400 nm and our UHP-LNIR series polarizers offer high contrast over the exceptionally broad range from 650 to 5000 nm.

SPECIFICATIONS

| Substrate Material | | |
|---|------------------|---|
| Ultraviolet | | UV Grade Fused Silica |
| Visible | | N-BK7 |
| Infrared | | N-BK7 |
| SWIR / MWIR | | Design dependent |
| Polarizer Material | | |
| Ultraviolet | | Dichroic Glass |
| Visible | | |
| Infrared | | |
| SWIR / MWIR | | |
| Transmitted Wavefront Distortion (P-V @ 632.8 nm) | | |
| Ultraviolet | | ≤ 1λ per Ø10 mm |
| Visible | | ≤ 1λ per Ø10 mm |
| Infrared | | ≤ 1λ per Ø10 mm |
| SWIR / MWIR | | Design Dependent |
| Surface Quality | | |
| Ultraviolet | | 40 – 20 scratch-dig |
| Visible | | |
| Infrared | | |
| SWIR / MWIR | | |
| Contrast Ratio | | |
| Ultraviolet: | 362 – 392 nm | > 100,000:1 |
| | 360 – 397 nm | > 10,000:1 |
| | 357 – 403 nm | > 1,000:1 |
| Visible: | 600 – 1,200 nm | > 100,000:1 |
| | 550 – 1,500 nm | > 1,000:1 |
| Infrared: | 850 – 1,600 nm | > 100,000:1 |
| | 750 – 1,800 nm | > 10,000:1 |
| | 650 – 2,000 nm | > 1,000:1 |
| SWIR / MWIR: | 2,000 – 4,500 nm | >10,000:1 |
| | 1,500 – 5,000 nm | > 1,000:1 |
| Beam Deviation | | |
| Ultraviolet | | ≤ 5arc-min |
| Visible | | ≤ 5arc-min |
| Infrared | | ≤ 5arc-min |
| SWIR / MWIR | | ≤ 10 arc-min / 12.5 mm ≤ 5 arc-min / 25 mm |
| Reflectance | | |
| Uncoated | | ~4.25% per surface at normal incidence R avg ≤ 0.5% over specified band (refer to available AR coatings) |
| Coated (optional) | | |
| Operating Temperature | | |
| Ultraviolet | | -20°C to +50°C |
| Visible | | -20°C to +50°C |
| Infrared | | -20°C to +50°C |
| SWIR / MWIR (unlaminated) | | -50°C to +400°C |

Specifications above are for laminated Ultra-high contrast polarizers. For unlaminated parts, please contact your Meadowlark Optics Sales Engineer.



Key Features

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Extremely high contrast, greater than 100,000:1

Unlaminated part usable to 400°C

Wavelength ranges within 340 to 5000 nm

Absorptive dichroic glass

Optical quality substrates for exceptional wavefront distortion

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

- 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



ORDERING INFORMATION

Mounted and Laminated

| Clear Aperture in. (mm) | Thickness in. (mm) | Diameter ± 0.005 in. (± 0.13 mm) | Part Number |
|----------------------------|-----------------------|--|-----------------|
| 0.40 (10.2 mm) | 0.25 (6.35 mm) | Ø1.00 (Ø25.4 mm) | UPM – 050 – UV |
| 0.40 (10.2 mm) | 0.25 (6.35 mm) | Ø1.00 (Ø25.4 mm) | UPM – 050 – VIS |
| 0.40 (10.2 mm) | 0.25 (6.35 mm) | Ø1.00 (Ø25.4 mm) | UPM – 050 – IR |
| 0.70 (17.8 mm) | 0.35 (8.89 mm) | Ø1.00 (Ø25.4 mm) | UPM – 100 – UV |
| 0.70 (17.8 mm) | 0.35 (8.89 mm) | Ø1.00 (Ø25.4 mm) | UPM – 100 – VIS |
| 0.70 (17.8 mm) | 0.35 (8.89 mm) | Ø1.00 (Ø25.4 mm) | UPM – 100 – IR |

Mounted and Unlaminated

| | | | |
|-------------------|--------------------|---------------------|-----------------|
| 0.40 (10.2 mm) | 0.185 (4.70 mm) | Ø1.00 (Ø25.4 mm) | UPM – 050 – MIR |
| 0.70 (17.8 mm) | 0.185 (4.70 mm) | Ø1.00 (Ø25.4 mm) | UPM – 100 – MIR |

Unmounted and Laminated

| Clear Aperture in. (mm) | Thickness in. (mm) | Diameter +0/-0.010 in. (+0/-0.25 mm) | Part Number |
|----------------------------|-----------------------|--|-----------------|
| 0.40 (10.2 mm) | 0.14 (3.56 mm) | Ø0.50 (Ø12.7 mm) | UHP – 050 – UV |
| 0.40 (10.2 mm) | 0.14 (3.56 mm) | Ø0.50 (Ø12.7 mm) | UHP – 050 – VIS |
| 0.40 (10.2 mm) | 0.14 (3.56 mm) | Ø0.50 (Ø12.7 mm) | UHP – 050 – IR |
| 0.80 (20.3 mm) | 0.26 (6.60 mm) | Ø1.00 (Ø25.4 mm) | UHP – 100 – UV |
| 0.80 (20.3 mm) | 0.26 (6.60 mm) | Ø1.00 (Ø25.4 mm) | UHP – 100 – VIS |
| 0.80 (20.3 mm) | 0.26 (6.60 mm) | Ø1.00 (Ø25.4 mm) | UHP – 100 – IR |

Unmounted and Unlaminated

| | | | |
|-------------------|---------------------|---------------------|-----------------|
| 0.40 (10.2 mm) | 0.008 (0.203 mm) | Ø0.50 (Ø12.7 mm) | UHP – 050 – MIR |
| 0.80 (20.3 mm) | 0.008 (0.203 mm) | Ø1.00 (Ø25.4 mm) | UHP – 100 – MIR |

Anti-reflection coating options are available:
 ARO covers 350 - 450 nm with R avg ≤ 0.5%
 AR1 covers 400 - 700 nm with R avg ≤ 0.5%
 AR2 covers 650 - 950 nm with R avg ≤ 0.5%
 AR3 covers 900 - 1250 nm with R avg ≤ 0.5%
 AR4 covers 1200 - 1700 nm with R avg ≤ 0.5%

**PHOTO
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