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12.5mm Ultra Broadband Wire Grid Linear Polarizer

Mounted Ultra Broadband Wire Grid Linear Polarizer

Stock **#34-314** **12 In Stock**

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Qty 1-10	**€1.215,00** each
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Product Downloads

General

Type:
Linear Polarizer

Physical & Mechanical Properties

Clear Aperture CA (mm):
8.5

Diameter (mm):
12.50

Thickness (mm):
5.80

Dimensional Tolerance (mm):
±0.4

Construction:
Wire Grid

Alignment Tolerance (°):
±1.0

Optical Properties

Angle of Incidence (°):
±20 without depolarization

Extinction Ratio:
5000:1 @ 3200nm

Substrate:
Fused Silica (Corning 7980)

Surface Quality:
80-50

Transmission (%):
>80 (Typical) @ 450nm

Wavelength Range (nm):
300 - 3200

Material Properties

Thermal Expansion:
5.5 x 10^{-7}/°C

Environmental & Durability Factors

Operating Temperature (°C):
-40 to +200

Regulatory Compliance

RoHS 2015:
Compliant

Reach 224:
Compliant

Certificate of Conformance:
View

Product Details

- Reflect S-Polarized Light
- Transmit P-Polarized Light
- Excellent Performance from UV to IR

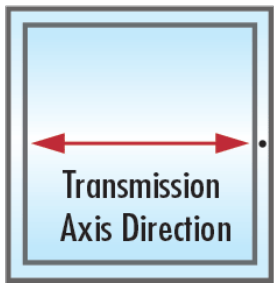
Ultra Broadband Wire Grid Polarizers consist of a thin layer of aluminum MicroWires layered between two Fused Silica windows. Designed for multi-wavelength applications, these polarizers have excellent heat resistance and performance beginning in the UV and extending into the infrared (IR). The polarizers feature a fused silica substrate. Ultra Broadband Wire Grid Polarizers reflect S-polarized light and transmit P-polarized light. These polarizers are available in a variety of thicknesses and clear apertures, in either a 12.5, 25, or 50mm diameter.

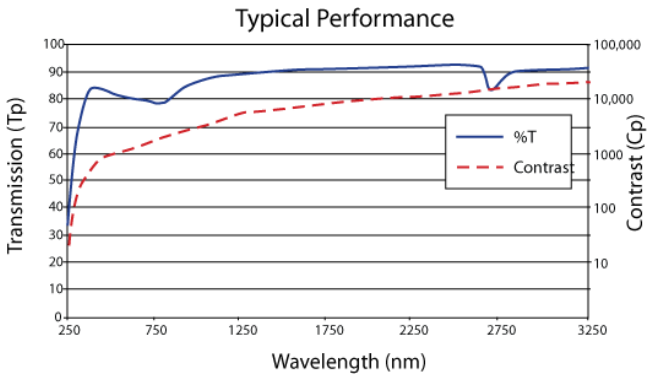
Note: The input beam should be oriented towards the cover glass side, indicated by a reference mark which also indicates the direction of the transmission axis.

Wire Grid Polarizers are constructed by attaching MicroWires to the first window, and then applying a thin cover glass onto the wire grid surface to protect the wire from damage. The light is polarized by the birefringent nature of the wire grid surface. When incident light strikes the wire grid, P-polarized light contacts a dielectric and is transmitted, while S-polarized light contacts a mirror and is reflected.

Technical Information

The reference mark on the side of the polarizer indicates the transmission axis as shown:




Typical Performance
Transmission (Tp)
Contrast (Cp)
Wavelength (nm)
%T
Contrast
100
90
80
70
60
50
40
30
20
10
0
100,000
10,000
1000
100
10
250
750
1250
1750
2250
2750
3250

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