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50mm Dia. BaF₂, IR Holographic Wire Grid Polarizer



50mm Dia. BaF₂, IR Holographic Wire Grid Polarizer, #62-771

Stock **#62-771** **2 In Stock**

⊖ 1 ⊕ **SS\$3,136⁰⁰**

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Volume Pricing	
Qty 1-5	SS\$3,136.00 each
Qty 6+	SS\$2,506.00 each
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General

Linear Polarizer **Type:**

Notches on polarizer ring are aligned with wires of wire grid (max. reflection) **Note:**

Physical & Mechanical Properties

34.0 **Clear Aperture CA (mm):**

50.00	Diameter (mm):
≤3	Parallelism (arcmin):
±0.2	Dimensional Tolerance (mm):
Wire Grid	Construction:
N/A	Groove Parallelism to Edge (°):
3.00	Substrate Thickness (mm):

Optical Properties

0	Angle of Incidence (°):
150:1 @ 3μm, 300:1 @ 10μm	Extinction Ratio:
Barium Fluoride (BaF ₂)	Substrate: <input type="checkbox"/>
Notches on polarizer ring are aligned with wires of wire grid	Polarization:
>65	Transmission (%):
2500 - 12000	Wavelength Range (nm):
M10 @ 10.6μm	Surface Flatness (P-V):
50 W/cm ²	Damage Threshold, By Design: <input type="checkbox"/>
2700.00	Groove Density (grooves/mm):

Threading & Mounting

6.0	Mount Thickness (mm):
±0.1	Ring Thickness (mm):
Black Anodized Aluminum	Mount:

Environmental & Durability Factors

-20 to 75	Operating Temperature (°C):
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Regulatory Compliance

Compliant	RoHS 2015:
View	Certificate of Conformance:
Compliant	Reach 247:

Product Details

- Designed for Wavelengths Ranging from 2 - 30μm
- Various Substrates Available
- 360° Rotation Using [Metric Polarizer Mounts](#)

Infrared (IR) Wire Grid Polarizers are used to polarize light from unpolarized infrared laser sources, as well as attenuate light from polarized ones. When two wire grid polarizers are used together, high extinction ratios greater than 40,000:1 can be achieved. The polarization axis of each polarizer is marked by two white lines etched into the surface of its protective ring. Infrared (IR) Wire Grid Polarizers are used in a variety of medical imaging, aerospace, FTIR spectrophotometry, and analytical instrumentation applications.

Infrared (IR) Wire Grid Polarizers are manufactured by a special holographic technique that creates sub-micron wire grid spacing. Compared to conventional ruled wire grid methods, the holographic method creates finer groove spacing which optimizes short wavelength performance. We offer holographic wire grid polarizers of Barium Fluoride (BaF₂), Zinc Selenide (ZnSe), Thallium Bromiodide (KRS-5), and Germanium (Ge).

Note: Special care should be taken when handling KRS-5 and Zinc Selenide as they are toxic materials. Always wear rubber or plastic gloves to avoid risk of contamination. The active wire-grid surface of the polarizer is extremely delicate and nothing should be allowed to touch it, as this can damage the optic. Only dry air is recommended as a cleaning method. If necessary, this optic should be handled by the edges only and with protected fingers.

Technical Information

Typical Max Transmission for Linear Polarized Light



Typical Min Transmission for Linear Polarized Light



Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality. Explore our [Optics Cleaning Resources](#) for step-by-step guides and best practices. For personalized assistance, [Email us](#) or [Chat](#) with our technical support team.



Component Handling Tools