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## 300 Grooves, 50mm Sq, 17.5° Groove Angle Grating



Stock #49-583 **4 In Stock**

⊖ 1 ⊕ A\$424.<sup>00</sup>

**ADD TO CART**

Volume Pricing	
Qty 1-9	A\$424.00 each
Qty 10-24	A\$381.60 each
Qty 25+	A\$318.00 each
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### Product Downloads

### General

Transmission Diffraction Grating **Type:**

### Physical & Mechanical Properties

50.00 x 50.00 **Dimensions (mm):**

90 **Clear Aperture (%):**

Blazed (Ruled) Grating	<b>Construction:</b>
50.00	<b>Length (mm):</b>
3.00 ±0.5	<b>Thickness (mm):</b>
50.00	<b>Width (mm):</b>
±0.5	<b>Alignment of Grooves to Edge (°):</b>

## Optical Properties

300	<b>Groove Density (grooves/mm):</b>
400 - 700	<b>Wavelength Range (nm):</b>
17.5	<b>Blaze Angle (°):</b>
B270	<b>Substrate:</b> <input type="checkbox"/>
VIS	<b>Wavelength:</b>
17.5	<b>Groove Angle (°):</b>

## Regulatory Compliance

<a href="#">Compliant</a>	<b>RoHS 2015:</b>
<a href="#">View</a>	<b>Certificate of Conformance:</b>
<a href="#">Compliant</a>	<b>Reach 247:</b>

## Product Details

- Low Polarization Sensitivity
- Ideal for In-Line Configurations

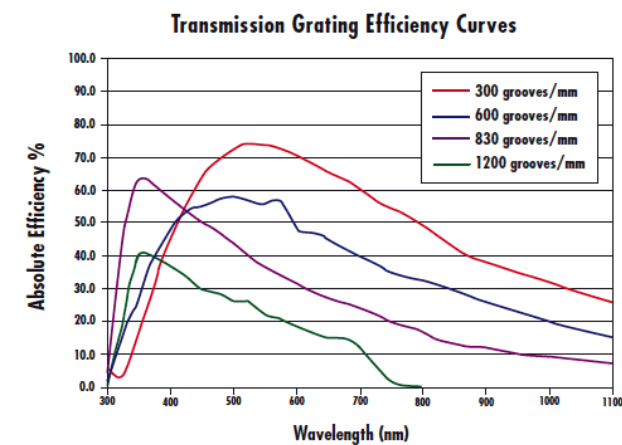
Transmission Gratings are designed to disperse incident light at specific angles. Angular dispersion is a function of angle of incidence and groove spacing. Dispersion increases as angle of incidence increases or as groove spacing decreases. Coarse groove spacing maintains high efficiency while fine groove spacing reduces transmission at long wavelengths resulting in low efficiency. Transmission Gratings are offered in 3 dimensions with varying groove densities.

Transmission Gratings offer low polarization sensitivity as opposed to reflection gratings because incident light is not reflected by a mirror coating such as aluminum. Since light is transmitted through the grating, transmission gratings can be used in compact, in-line configurations. They are ideal for use in monochromators and spectrometers.

Transmission Gratings are manufactured in the same way as ruled reflection gratings in which a replica of a master grating is created by duplicating its grooved surface with a thin, vacuum deposition-coated layer, except they have no reflective overcoat. Uncoated transmission gratings provide high efficiency over a long wavelength range while Anti-Reflection (AR) coated gratings increase performance at a specific wavelength. AR coated versions are available upon request; please contact our [Applications Engineering Department](#).

**Handling Gratings:** Gratings require special handling, making them prone to fingerprints and aerosols. Gratings should only be handled by the edges. Before attempting to clean a grating, please [contact us](#).

## Technical Information



## 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

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