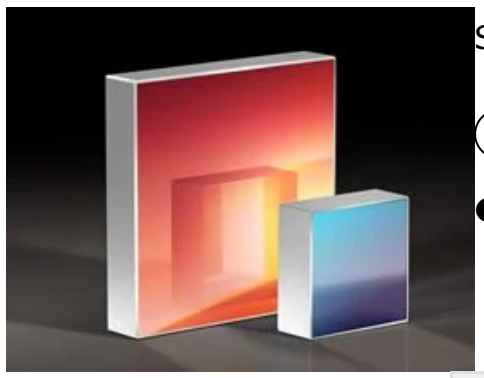
1200 Grooves/mm, 50mm Square, UV Holographic Grating



Reflective Holographic Gratings

Stock #43-214 2 In Stock

- 1 +

MRP ₹41,870

Price inclusive of all taxes

ADD TO CART

Volume Pricing	
Qty 1-9	₹41,870 each
Qty 10-24	₹37,682 each
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Product Downloads

STEP:step | Curve:pdf | PDF Drawing:pdf | IGES:igs | Spec Sheets:pdf | eDrawing:eprt | EO Spec Sheet | Download All

General

Type:	Reflective Diffraction Grating

Physical & Mechanical Properties

Dimensions (mm):	50.0 x 50.0 ±0.5	**Construction:**	Holographic Grating
Length (mm):	50.00	**Thickness (mm):**	9.50 ±0.5
Width (mm):	50.00	**Alignment of Grooves to Edge (°):**	±0.5

Optical Properties

Groove Density (grooves/mm):	1200	**Wavelength Range (nm):**	250 - 400
Coating:	Bare Aluminum	**Substrate:** ⓘ	Float Glass
Wavelength:	UV	**Absolute Peak Efficiency, Typical (%):**	74
Peak Efficiency Avg, Typical (%):	>69		

Regulatory Compliance

RoHS 2015:	Compliant	**Certificate of Conformance:**	View
Reach 247:	Compliant		
Country of Origin:	United States	**Imported By:**	Edmund Optics India Private Limited 267, Greystone Building, Second Floor,

6th Cross Rd,
Binnamangala,
Stage 1,
Indiranagar,
Bengaluru,
Karnataka,
India 560038
Phone: +91-
80-6845 0000

Product Details

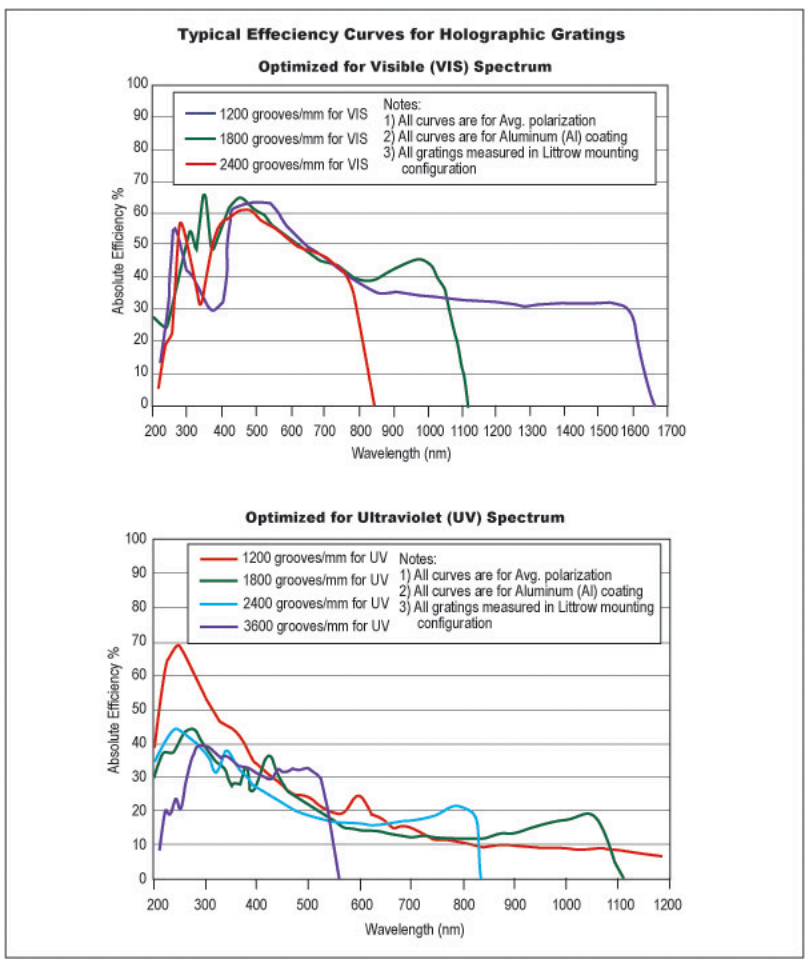
- Groove Density up to 3600 Grooves per mm
- Bare Aluminum Coating
- Sinusoidal Grating Profile
- Available Wavelength Range of 250 - 1500nm

Holographic gratings are formed by an interference fringe field of two laser beams whose standing wave pattern is exposed to a polished substrate coated with photoresist. Processing of the exposed medium results in a pattern of straight lines with a sinusoidal cross section.

Holographic gratings produce less stray light than ruled gratings. They can also be produced with up to 3600 grooves per millimeter for greater theoretical resolving power. Due to their sinusoidal cross section, holographic gratings cannot be easily blazed and their efficiency is usually considerably less than a comparable ruled grating. There are, however, special exceptions which should be noted. When groove spacing to wavelength ratio is near one, a holographic grating has virtually the same efficiency as the ruled version. Also, a holographic grating with 1800 grooves per millimeter has the same efficiency at 500nm as a blazed ruled grating. Holographic master gratings are replicated by a process identical to that used for ruled gratings.

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

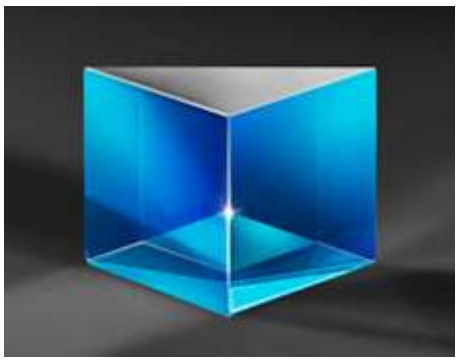
Related Products

Adjustable Grating Mounts

Frequently Purchased Together

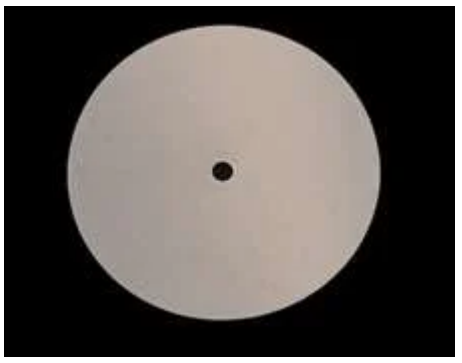
#33-014 – 15mm Dia 0.50 NA, 532nm V-Coat, Aspheric Lens
₹56,196

Qty



#34-402 – 10mm VIS 0°, N-BK7 Right Angle Prism (Hypotenuse Coated)
₹12,007

Qty



#39-729 – 500µm Aperture Diameter, Unmounted, Precision Pinhole
₹7,315

Qty

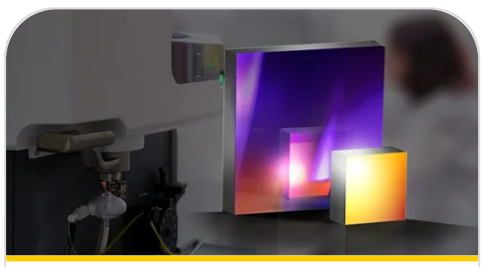
#41-034 – 1200 Grooves, 50mm Square, 250nm Ruled Diffraction Grating
₹29,763

Qty

Resources

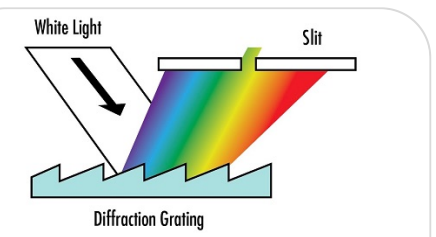
Media Type

- [ ] Application Note
- [ ] Video
- [ ] FAQ
- [ ] Glossary



WEBINARS

Helpful Tips for Selecting the Correct Diffraction...

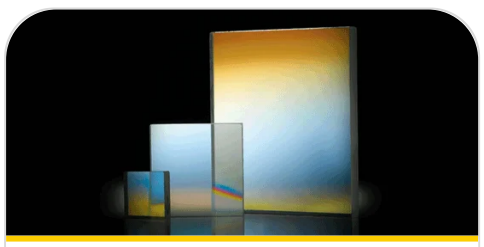


APPLICATION NOTE

All About Diffraction Gratings

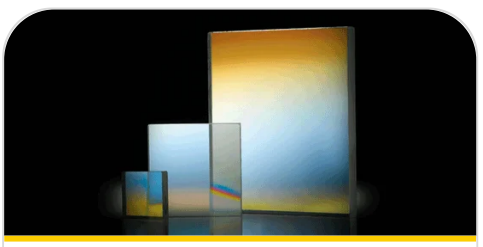
VIDEO

Richardson Gratings™ Unboxing



? FAQ

What is the difference between holographic...



? FAQ

How do the efficiency curves relate to the actual...

? FAQ

What is the difference between Rowland circl...

View More

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