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1800 Grooves/mm, 12.7mm Square, VIS Holographic Grating

Reflective Holographic Gratings

Stock **#43-775** **20+ In Stock**

- 1 + **€125**.00

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Volume Pricing	
Qty 1-9	**€125,00** each
Qty 10-24	**€112,50** each
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Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Type:
Reflective Diffraction Grating

Physical & Mechanical Properties

Dimensions (mm):
12.7 x 12.7 ±0.5

Construction:
Holographic Grating

Length (mm):	12.70
Thickness (mm):	6.00 ±0.5
Width (mm):	12.70
Alignment of Grooves to Edge (°):	±0.5

Optical Properties

Groove Density (grooves/mm):	1800
Wavelength Range (nm):	400 - 700
Coating:	Bare Aluminum
Substrate:	Float Glass
Wavelength:	VIS
Absolute Peak Efficiency, Typical (%):	81
Peak Efficiency Avg, Typical (%):	>65

Regulatory Compliance

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

Product Details

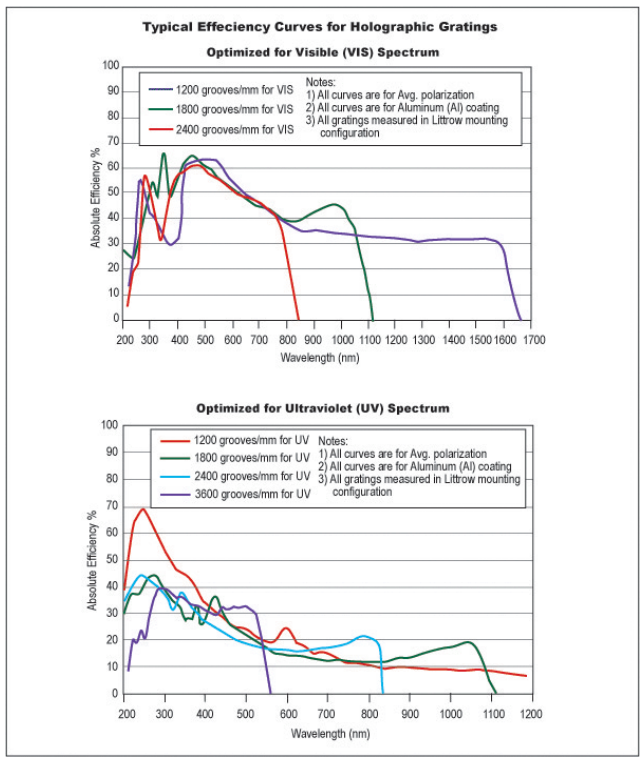
- Groove Density up to 3600 Grooves per mm
- Bare Aluminum Coating
- Sinusoidal Grating Profile
- Available Wavelength Range of 250 - 1500nm

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

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