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Coherent® LightSmyth™ 800nm, 1398.6 Grooves/mm, 24 x 14.9mm Transmission Diffraction Grating

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LightSmyth™ Transmission Diffraction Gratings

Stock **#16-860** **2 In Stock**

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1

+

€695^{.00}

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Volume Pricing	
Qty 1-9	€695,00 each
Qty 10-24	€625,50 each
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i Prices shown are exclusive of VAT/local taxes

Product Downloads

General

1304168	Model Number:
Transmission Diffraction Grating	Type:
	Note:

S-Polarization defined with E-field parallel to the grating grooves	
Physical & Mechanical Properties	
0.001	Groove Density Uniformity (grooves/mm):
24.00 x 14.90	Dimensions (mm):
23.00 x 13.90	Clear Aperture CA (mm):
Multi-Layer Dielectric Binary Etch Grating	Construction:
24.00	Length (mm):
0.95 ±0.050	Thickness (mm):
14.90	Width (mm):
0.1 (typical)	Alignment of Grooves to Edge (°):
Optical Properties	
1398.6	Groove Density (grooves/mm):
800 ±20	Design Wavelength DWL (nm):
≥94 @ 800nm	Minimum Efficiency (%):
34 ±1	Angle of Incidence (°):
Dielectric	Coating:
Fused Silica (Corning 7980)	Substrate: ☐
60–40	Surface Quality:
S and P	Polarization:
Regulatory Compliance	
View	Certificate of Conformance:

Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

Product Details

- High Diffraction Efficiency (>94% Absolute) and Low Scatter
- Polarization Independent and Single Polarization Optimized Gratings
- Robust Inorganic Materials for Superior Power Handling and Reliability
- Designs for NIR Wavelengths between 800 - 1800nm

Coherent® LightSmyth™ Transmission Diffraction Gratings are manufactured through a precision lithographic wafer-scale fabrication process and provide excellent optical performance, low polarization sensitivity, and low scatter. These gratings have a high diffraction efficiency of ≥94%, minimizing optical losses when used in multi-pass configurations. Gratings designed for near infrared (NIR) wavelengths between 800 - 1800nm are available with all featuring a precision line density uniformity of 0.001 lines/mm. Coherent® LightSmyth™ Transmission Diffraction Gratings are used in demanding applications including Spectral Beam Combining (SBC), LiDAR, optical telecommunications, pulse compression of pico- and femtosecond pulses, and spectroscopy. These gratings contain no organic materials and can be used with high power lasers and in environments up to 500 °C with no effects on performance. Please contact us for custom sizes or OEM requirements.

Note: II-VI Incorporated is now Coherent Corp.

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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