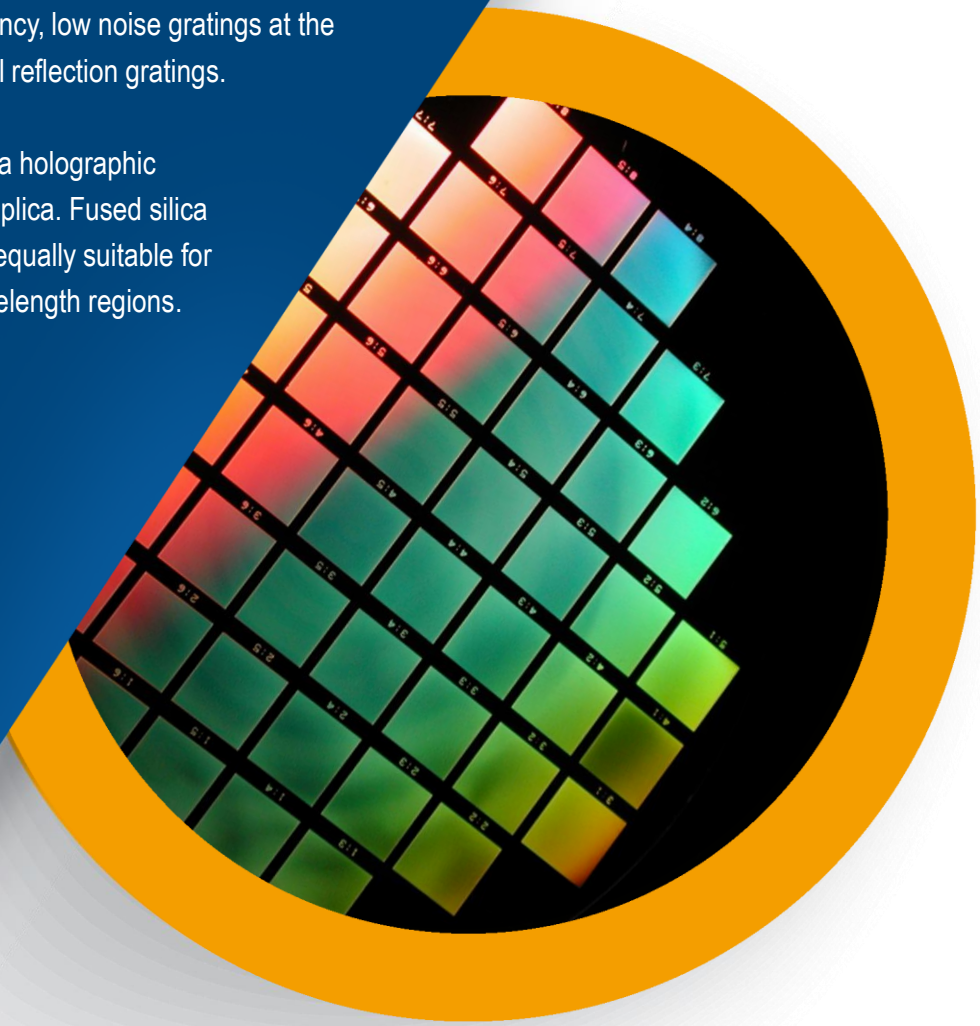
Fused silica transmission grating technology enables high resolution, high efficiency gratings that are ideal for compact spectrometers

Ibsen photonics

Transmission gratings from Ibsen build on leadership in fused silica transmission grating technology. The superior performance of holography, combined with wafer-based Holostepper™ processing, makes possible high resolution, high efficiency, low noise gratings at the cost level of traditional reflection gratings.

Each Ibsen grating is a holographic masterpiece - not a replica. Fused silica grating technology is equally suitable for UV, VIS and NIR wavelength regions.



Spectrometer Grating

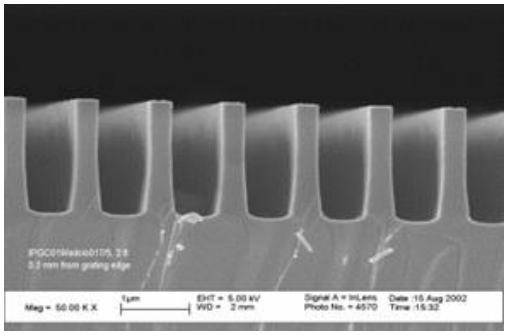
1274 l/mm for 360 – 830

FSTG-XVIS1274-904

1274 l/mm for 360 – 830

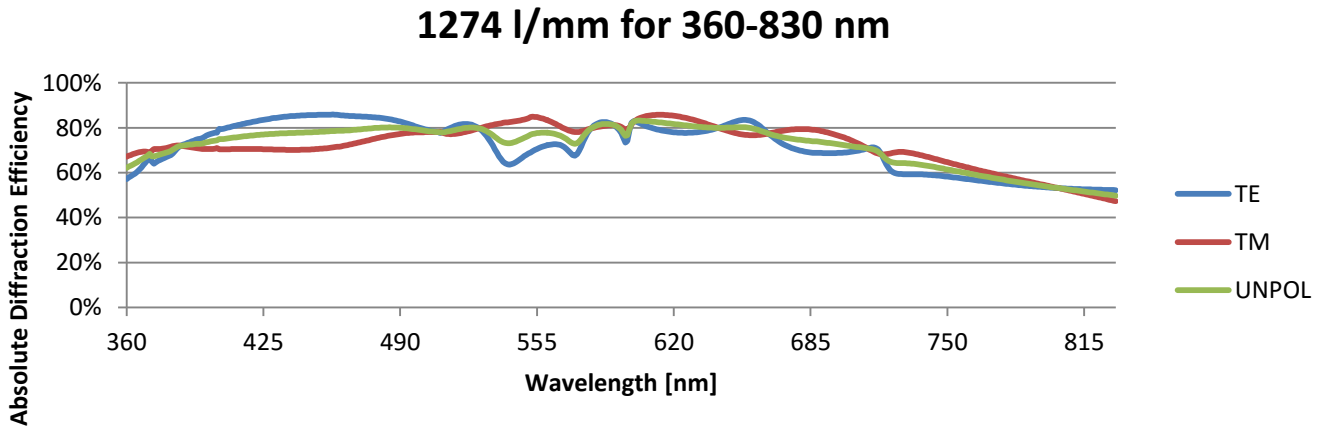
FSTG-XVIS1274-904

Benefits
High diffraction efficiency combined with high dispersion
Low polarization dependence over broad spectral range
Unbeatable temperature and environmental tolerance
Transmission configuration offers flexible and tolerant design
Low stray light and low wavefront distortion



Parameter	Specification
Materials	Fused silica and high-power, dielectric AR coating materials
Grating area	4 mm x 4 mm
Chip size	5 mm x 7 mm
Chip thickness	0.625 mm
Grating resolution	1274 l/mm
Dispersion at 532 nm	0.079 deg/nm
Angle of incidence (AOI)	17.3 deg
Illumination bandwidth	360 – 830 nm
Diffraction efficiency, unpolarized	>40%, all wavelengths
Coefficient of thermal expansion (CTE)	0.5 ppm/K
Maximum operating tempature	>500 degrees C
Cleaning recommendation	First contact. Available from Photonic Cleaning

Typical grating performance



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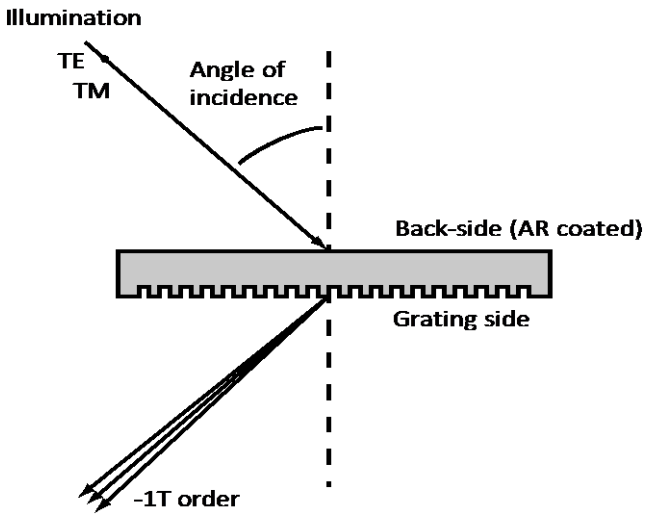
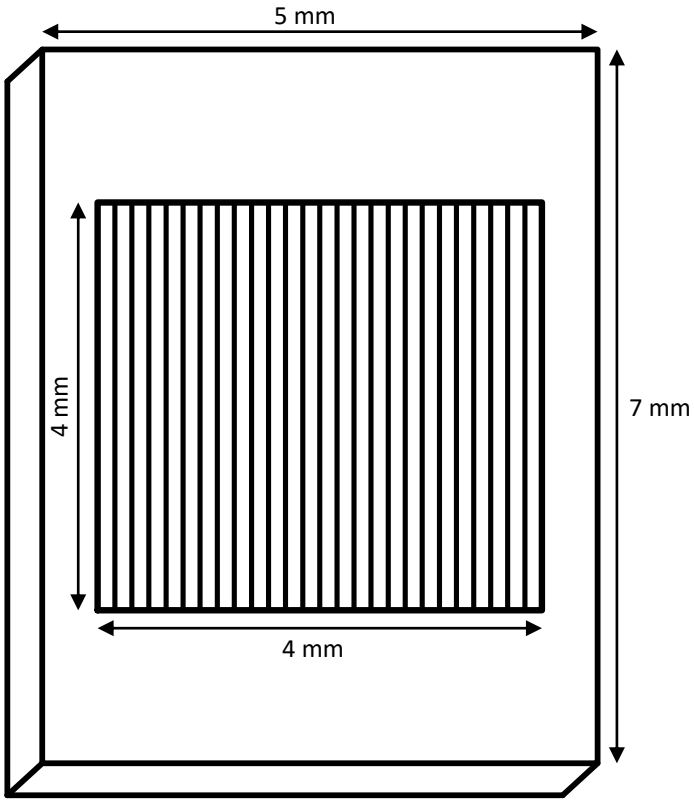
1274 l/mm for 360 – 830

FSTG-XVIS1274-904

Configuration/definitions



Drawing



Specifications are subject to change without notice.

The above grating is an example of Ibsen's capabilities. Ibsen operates as grating partner for our customers, from being an integrated part of the grating and device / instrument design phase, to the manufacturing of prototypes, to volume manufacturing of OEM gratings.

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