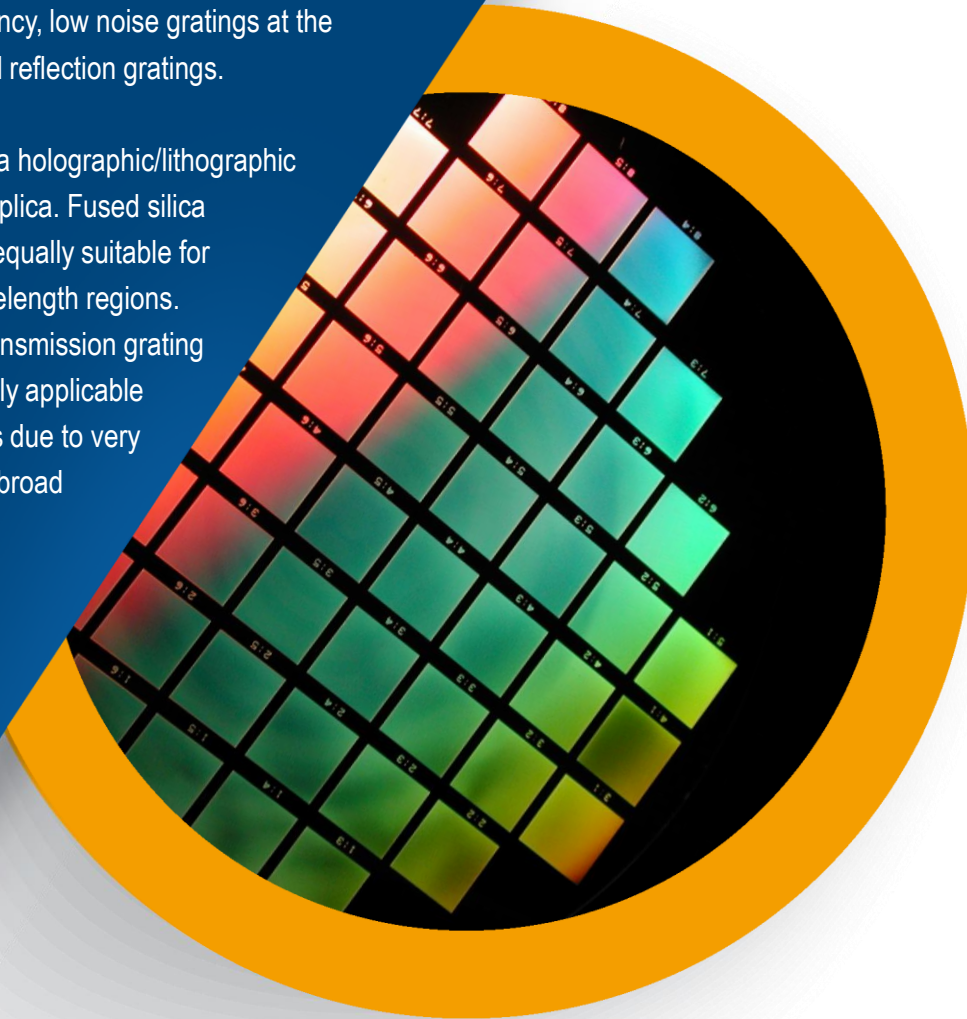


Fused silica transmission grating technology enables high resolution, high efficiency gratings that are ideal for compact spectrometers



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/lithographic masterpiece - not a replica. Fused silica grating technology is equally suitable for UV, VIS and NIR wavelength regions. Ibsen's fused silica transmission grating technology is especially applicable to Raman applications due to very high efficiency over a broad bandwidth.



Spectrometer Grating

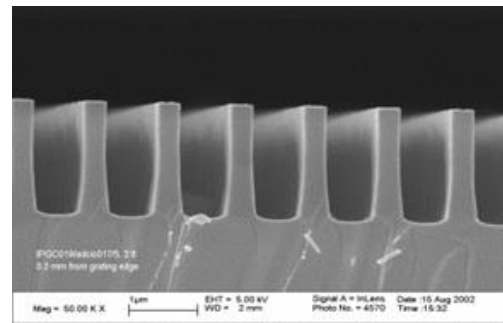
1500 l/mm for 785 – 1100

FSTG-NIR1500-909

1500 l/mm for 785 – 1100

FSTG-NIR1500-909

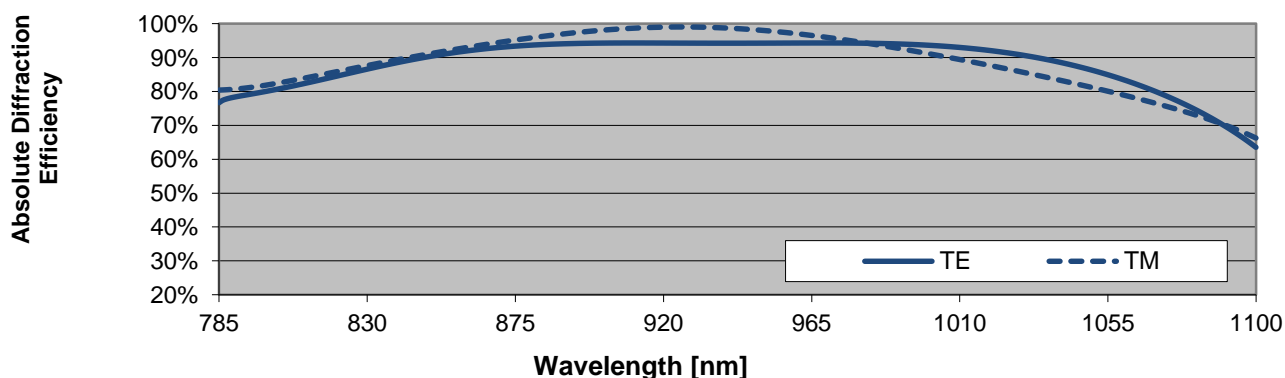
Benefits
High diffraction efficiency combined with high dispersion
Low polarization dependence over broad spectral range
Unbeatable temperature and environmental tolerance
Transmission configuration offers flexible and tolerant design
Low stray light and low wavefront distortion



Parameter	Specification
Materials	Fused silica and high-power, dielectric AR coating materials
Grating area	30 mm x 15 mm
Chip size	33 mm x 18 mm
Chip thickness	1.0 mm
Grating resolution	1500 l/mm
Dispersion at 940 nm	0.12 deg/nm
Angle of incidence (AOI)	44 deg
Illumination bandwidth	785 – 1100 nm
Diffraction efficiency 785-1065 nm, unpolarized	>60%, all wavelengths
Diffraction efficiency 1100 nm, unpolarized	>50%, all wavelengths
Coefficient of thermal expansion (CTE)	0.5 ppm/K
Maximum operating temperature	>500 degrees C
Cleaning recommendation	First contact. Available from Photonic Cleaning

Typical grating performance

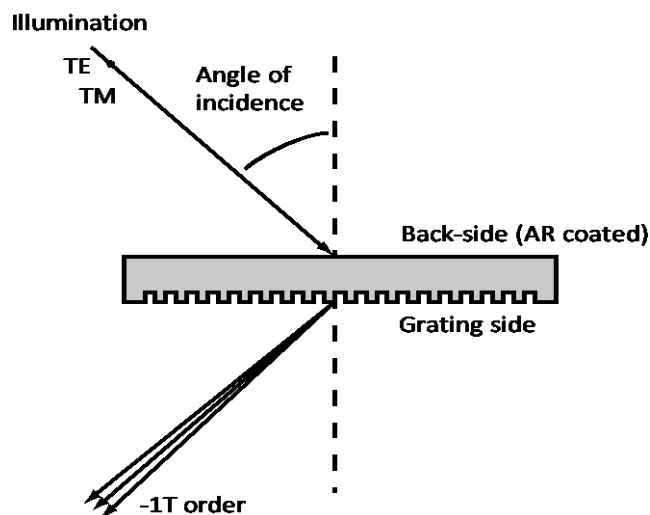
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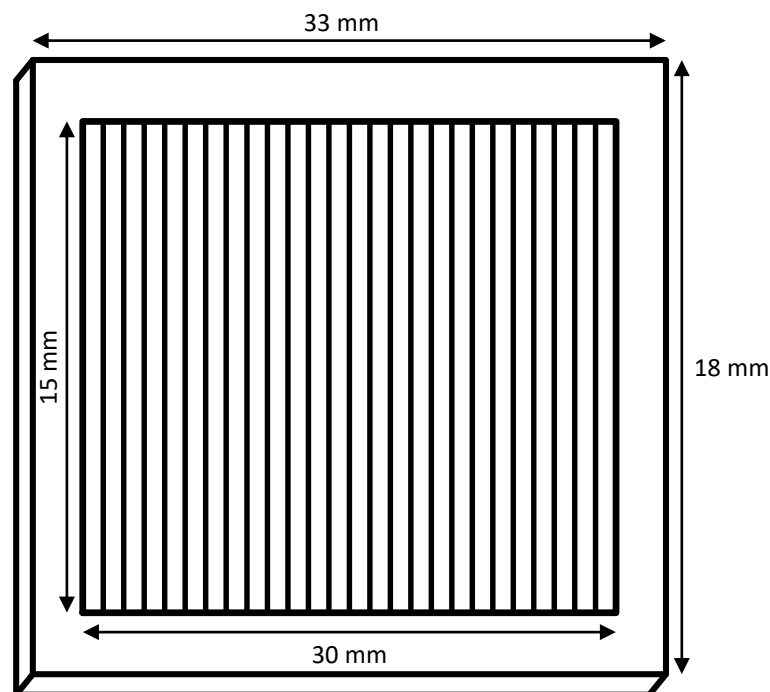
1500 l/mm for 785 – 1100

FSTG-NIR1500-909

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.