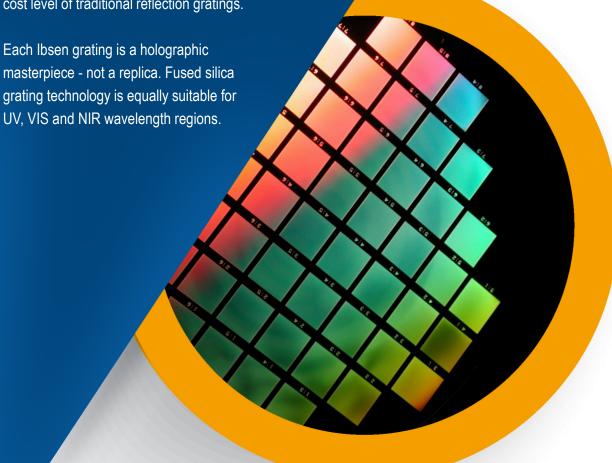
Fused silica transmission grating technology enables high resolution, high efficiency gratings that are ideal for compact spectrometers



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.



Spectrometer Grating

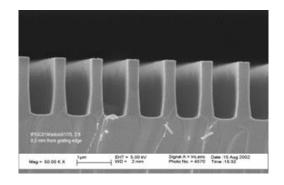
966 I/mm for 190 - 1100 nm

FSTG-UVNIR966-701

966 I/mm for 190 - 1100 nm

FSTG-UVNIR966-701

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 8 mm
Chip thickness	0.625 mm
Grating resolution	966.2 I/mm
Dispersion at 645 nm	0.056 deg/nm
Angle of incidence (AOI)	27 deg
Illumination bandwidth	190 – 1100 nm
Diffraction efficiency, unpolarized	>17%, 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



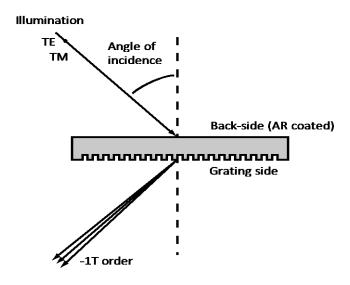
FSTG-UVNIR966-701 60% 50% 40% 30% 20% 10% -TE **---**TM 0% 390 490 290 590 690 790 890 990 1090 190 Wavelength [nm]



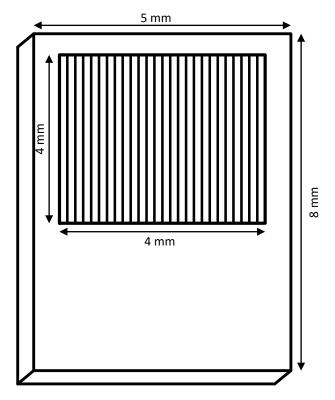
966 I/mm for 190 - 1100 nm

FSTG-UVNIR966-701

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.

