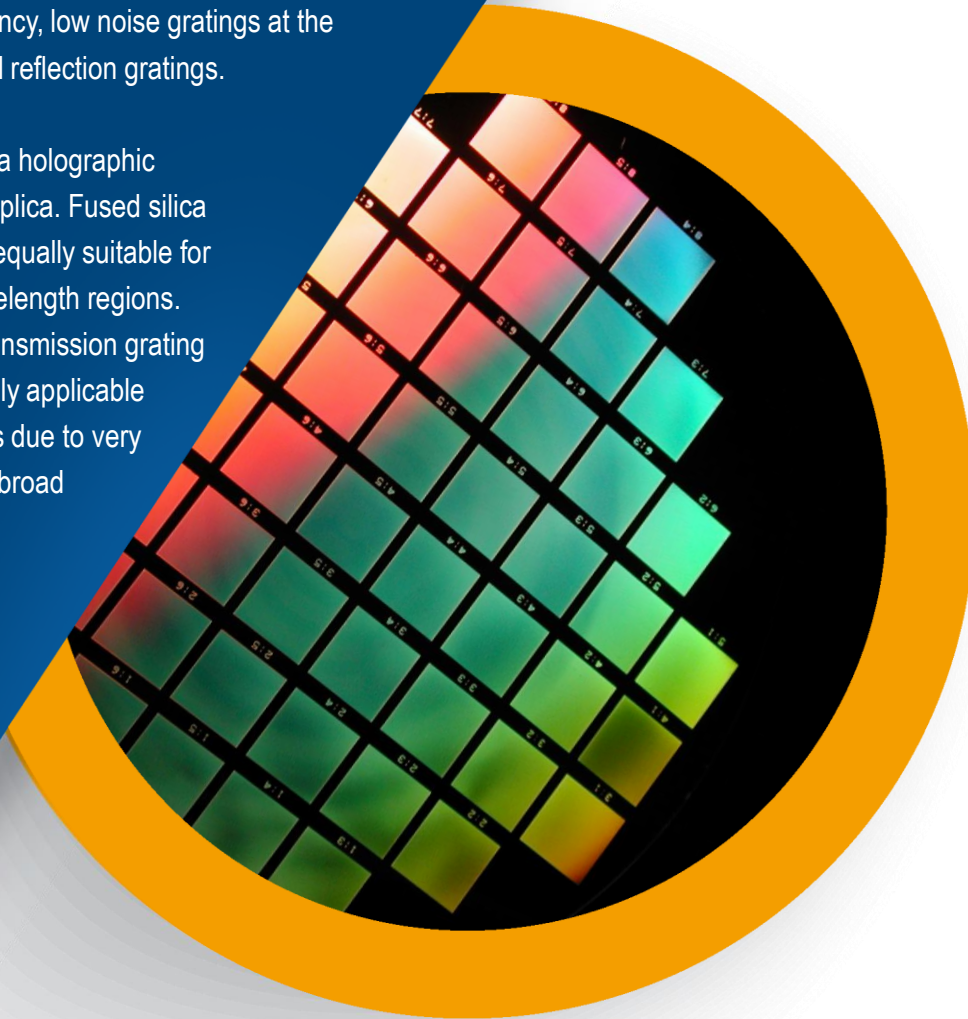


***Fused silica transmission grating technology enables high resolution, high efficiency gratings that are ideal for compact spectrometers***



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 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**

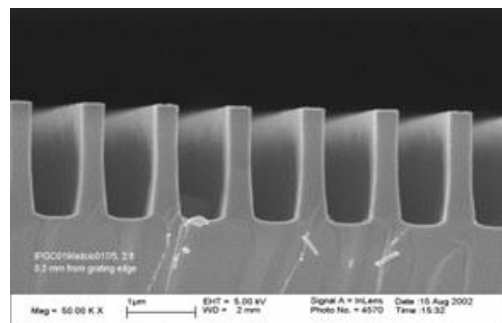
**FSTG-NIR1500-356ds**

# 1500 l/mm for 785 – 1100

## FSTG-NIR1500-356ds

### Benefits

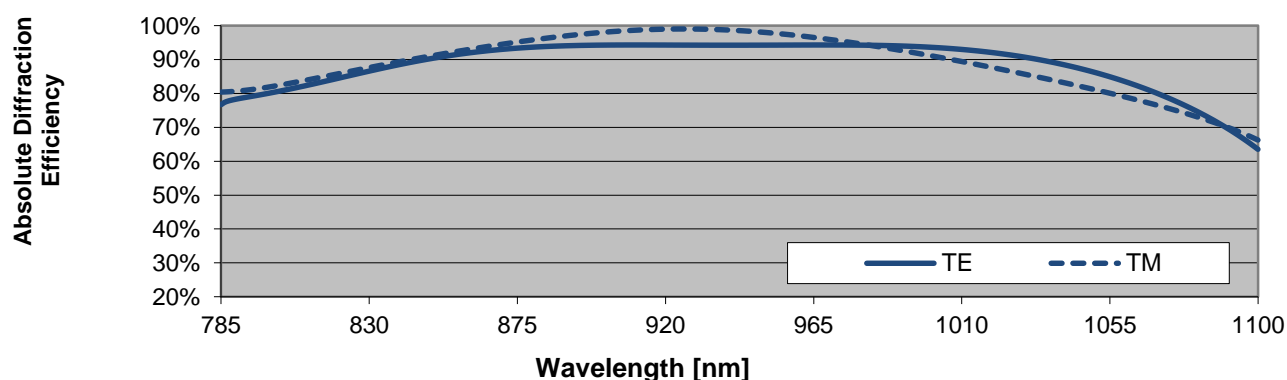
- High diffraction efficiency combined with high dispersion
- Low polarization dependence over broad spectral range
- Unbeatable temperature and environmental tolerance
- Transmission configuration offers flexible and tolerant design
- Low stray light and low wavefront distortion



Parameter	Specification
Materials	Fused silica and high-power, dielectric AR coating materials
Grating area	28 mm x 21 mm
Chip size	30 mm x 24 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

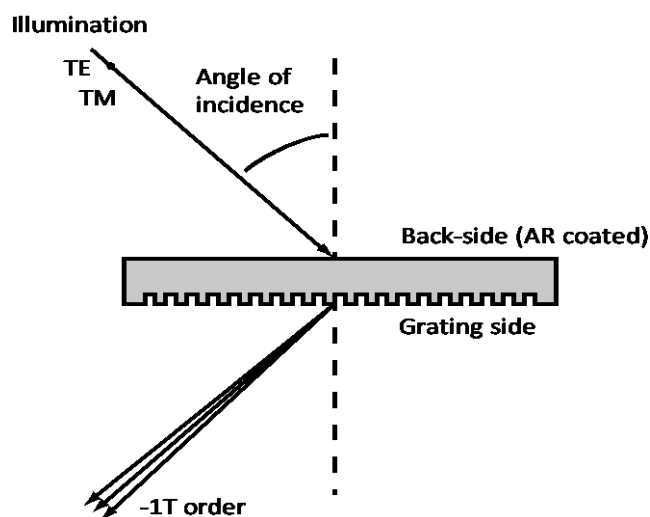
#### FSTG-NIR1500-356ds



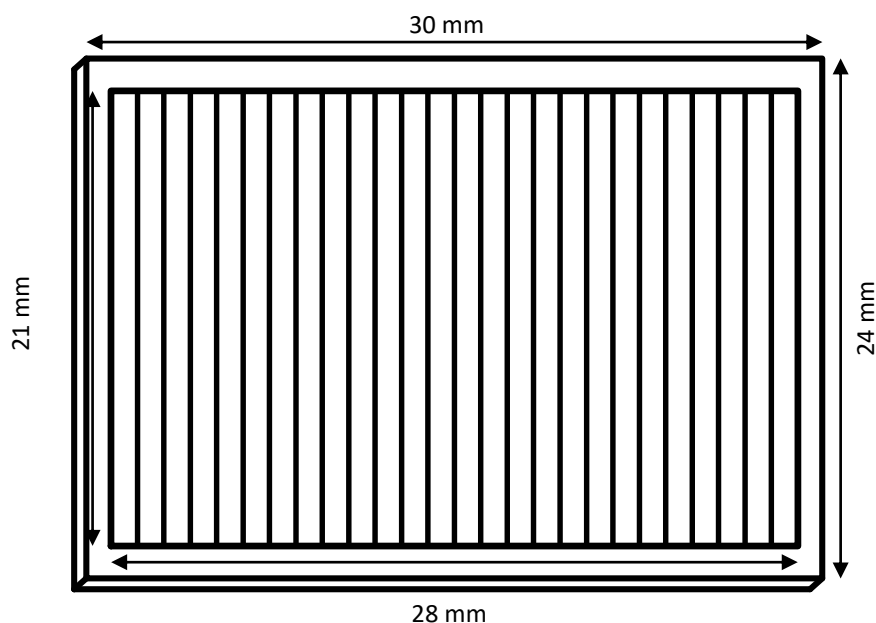
# 1500 l/mm for 785 – 1100

## FSTG-NIR1500-356ds

### 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.