



Adaptable Gratings with Wavefront Transformation Functionality

wavefront sensing portfolio

Description

This device is a deformable substrate with diffraction grating grooves formed on its surface, attached to an opening of a vessel. The grooves are formed using a flat substrate stamp produced using photolithography, mask-less lithography, holography or mechanical ruling. These adaptable gratings can be used for the fine tuning of modern spectrometer systems to achieve better resolution and aberration control.

Features and Benefits

- A diffractive grating element has the unique ability to change wavefront properties of diffracted or reflected light.
- The pressure within the vessel can be manipulated to achieve variable curvature of the deformable substrate.
- This device is able to optimize imaging or spectra in a particular diffraction order, or imaging of reflective light through wavefront transformation.

Applications

This tool is useful for calibrating telescopes, interferometers and other optical systems.

For More Information

If you are interested in more information or want to pursue transfer of this technology, GSC-14725-1, please contact:

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