



Fast, accurate and reliable measurements in the ultraviolet spectrum (190 – 300 nm)!

Our HASO UV Hartmann wavefront sensor is the ideal tool for customers working in the ultraviolet spectrum (190 – 300 nm). They provide fast, accurate and reliable measurements by taking advantage of the HASO family's standard functionalities that customers have come to rely on, including absolute measurement, unequalled accuracy and insensitivity to vibration at speeds up to 20 Hz.



Our proprietary Dynamic Spot Tracking™ and Auto Spot Finder™ features provide superior accuracy and eliminate crossing spots, without compromising dynamic range. Even more, Imagine Optic's proprietary calibration technology enables you to obtain absolute measurements every time, without the need for a reference beam, and our patented sensor design allows you to measure phase and intensity independently and in real-time.

HASO UV is the ideal tool for UV optical component metrology (mirrors, lenses, flat windows, etc.) and, when couple with our HASO v3 software, enables you to perform both zonal and modal wavefront reconstruction; calculate the PSF, MTF and Strehl ratio; visualize the spot diagram; and obtain the M² parameter. These sensors are equally perfect for aligning and characterizing optical systems used in microlithography, measuring thermal and gravitational effects, and mechanical deformities.

If you would like more information on our products, please visit our website www.imagine-optic.com, call +33 (0)1 64 86 15 60, or e-mail us at contact@imagine-optic.com.

| | HASO - UV 50 |
|--|-----------------------|
| Aperture dimension | 8 x 8 mm ² |
| Sub-apertures dedicated for analysis | 50 x 50 |
| Tilt dynamic range | till ± 1,5° |
| Focus dynamic range ¹ | ± 0,030 m to ± ∞ |
| Maximum operating aperture (half angle sind) | 0,13 (max) |
| Repeatability (rms) | ~ 1,5 nm |
| Wavefront measurement accuracy in absolute mode (rms) ² | ~ 3,5 nm |
| Wavefront measurement accuracy in relative mode (rms) ³ | ~ 2,5 nm |
| Tilt measurement accuracy (rms) | 0.5 μrad |
| Focus measurement accuracy (rms) | 2,5.10-4 / m-1 |
| Spatial resolution | ~ 160 μm |
| Acquisition frequency / processing frequency | ~20 Hz / ~ 3 Hz |
| Working wavelength range | 193 - 300 nm |
| Working temperature | 15 – 30° C/ 5 – 45° C |

(1) For the central wavelength: 470 λ for the HASO UV 50. (2) wavefront directly measurement by the wavefront sensor (no added lens). (3) difference between a referenced wavefront and the measured wavefront, in a range < 10 λ.



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