HASO4 VIS

IDEAL WAVEFRONT
SENSOR FOR VISIBLE LIGHT

OUTSTANDING
COST EFFICIENCY

COMPACT
AND VERSATILE

EASY
TO USE

"An excellent instrument, indeed! So powerful and easy to use."

Bill Dougherty PhD, Senior Scientist
Applied Precision
A GE Healthcare Company

WHY TO BUY

- 10 nm rms accuracy over the full visible spectrum (monochromatic or polychromatic)
- Optimized for large wave length range (400 -700 nm)
- Patented measurement technology of phase and intensity simultaneously and independently
- Optimized for polychromatic beams : ideal for applications based on visible LED or white lamps
- 100 Hz, full resolution
- C, LabVIEW and MATLAB compatible core engine SDK of WaveView
- C-mount compatible entrance aperture
- External trigger capability
- The industry's most complete software package WaveView included

Thanks to the USB 3.0 connectivity, HASO4 VIS wavefront sensor is easy to deploy and ready for any application in visible spectrum.

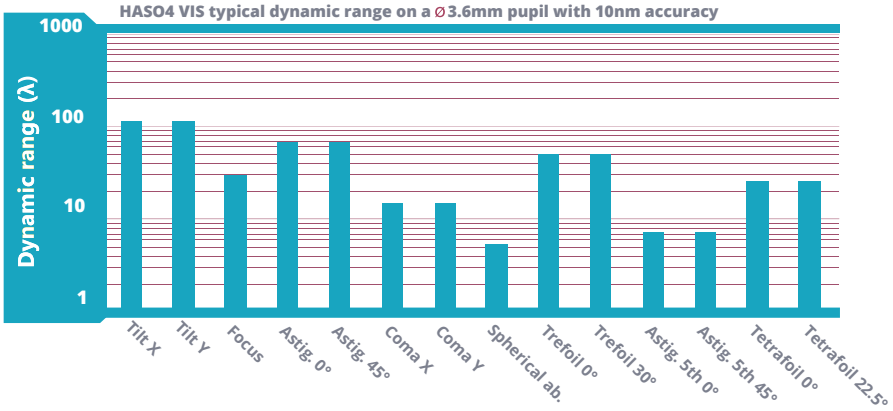
imagine optic™

HASO4 VIS — THE WAVEFRONT SENSOR FOR VISIBLE LIGHT

Providing outstanding performances, the HASO Wavefront Sensors family is used on the most demanding applications in optical metrology, microscopy and laser diagnostics worldwide.

The three unique characteristics delivered with each of our products, factory calibration, advanced software and high quality microlens array allow the HASO4 VIS to provide a level of performance beyond comparison.

- 10 nm rms absolute accuracy on a huge dynamic range (see graphic)
- Patented wavefront correction algorithms for intensity beam variations (laser, Gaussian, hyper Gaussian, apodized beams...)
- Measurement up to 64 Zernike polynomials with individual accuracy better than 2nm rms
- Optimized for polychromatic applications.



OUTSTANDING PERFORMANCE EXAMPLES WITH HASO4 VIS

- Beam collimation with an accuracy better than 200 m radius of curvature
- A 20 mm focal length measurement with a sensitivity of 1 µm rms
- Direct wavefront acquisition of converging and diverging F/5 beams with an accuracy of 10 nm rms including astigmatism and high order aberrations
- Control and adjustment of axial laser beam deviation better than 5 µrad rms
- 3D localization of a focal spot up to 0.1 µm rms and 1 µm rms for lateral and axial resolution respectively (0.1 NA beam).

WaveView SOFTWARE

- HASO4 FIRST is delivered with WaveView, the most advanced wavefront measurement and analysis software. It offers more than 180 functions and tools optimized for a wide range of highly demanding applications. The latest version benefits of more than 15 years customer's feedback, it is regularly updated and constantly improved with new functionalities increasing the capability of the measurement and the ease of use of the wavefront sensor. Modules dedicated to PSF, Strehl ration, MTF, M² are available.
- Our core engine SDK package or WaveKit (C, LabVIEW and MATLAB) enables the user to develop for his customized experiment or OEM product.

Aperture dimension	3.6 x 4.5 mm²
Number of microlenses	32 x 40
Tilt dynamic range	> ± 3 ° (400 λ)
Focus dynamic range	± 0.018 m to ± ∞ (350 λ)
Repeatability (rms)	7.5 nm
Wavefront measurement accuracy in absolute mode (rms)	10 nm
Spatial resolution	~ 110 µm
Maximum acquisition frequency	100 Hz
External trigger	TTL signal
Wavelength range	400-700 nm
Dimensions / weight	42x 42 x 42 mm /150g
Working temperature	15 – 30° C
Interface / Power supply	USB 3.0 / 2.7 W via USB
Operating system	Win XP, Win 7 (x86 / x64)

www.imagine-optic.com