

- The ShaH-6060 industrial Shack-Hartman wavefront sensor is intended for a wide range of applications including fast and precise quality control of optical elements, airflow analysis, measurement of laser beam parameters, etc.
- A special high-precision algorithm for locating hartmann image spots centers provides very accurate measurements even in difficult viewing conditions.
- The SDK (C++) allows to operate all functions of the sensor and to achieve easy integration with user software.

## WaveFront Sensor ShaH-6060

TECHNICAL SPECIFICATIONS	
Aperture diameter	60 mm
Spatial resolution	1.5 mm
Number of points for analysis	1500
Maximum tilt normal/extended mode	±2.5/7.5 mrad
Minimum curvature	±12 m
Repeatability RMS	0.4 nm
Absolute accuracy RMS	λ/100 *
Relative accuracy RMS (at maximum angular source size <1 mrad)	λ/1800
Relative measurement accuracy P-V (within 90% of input aperture)	λ/450
Tilt measurement sensitivity	0.025 μrad
Curvature measurement sensitivity	580 km
Acquisition frequency	60 Hz
Processing frequency	up to 60 Hz
Hartmann image acquisition	8/10 bit
Working wavelength	350-1100 nm
Calibrated waveband	200 nm
Maximal exposure (at wavelength 720 nm)	0.13 nJ/cm <sup>2</sup>
Working temperature	from 0 to +40 °C
Weight	2.8 kg
Dimensions	300x160x100 mm

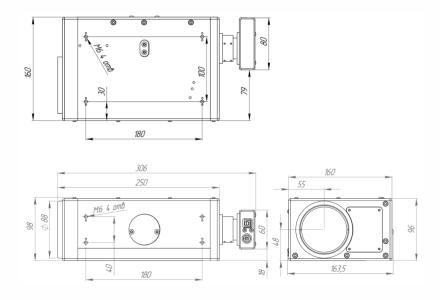
Visionica Ltd. 2015



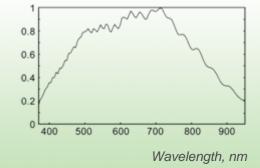
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Interface/power supply	USB-2
Synchronization connector	Mini DIN
Operating system	Windows 2000/XP/Vista/7/8 (32/64-bit)
Output data	<ul> <li>Sequence of raw hartmann images</li> <li>Spot shift map</li> <li>Wavefront aberration map (3D plot, 2D projection, synthesized interferogram, up to 55 Zernike polynomials)</li> <li>Defocus/Curvature/Astigmatism</li> <li>PSF (point spread function)</li> <li>MTF (modulation transfer function)</li> <li>Strehl ratio</li> <li>M2 factor</li> <li>Gauss-Hermite modes</li> <li>Turbulence parameters C<sub>n</sub><sup>2</sup>, R<sub>0</sub> and other</li> </ul>

## **DIMENSIONS**



## SPECTRAL RESPONSIVITY



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