

- The ShaH-1001000 - 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.

VISIONICA

WaveFront Sensor ShaH-1001000

TECHNICAL SPECIFICATIONS

Aperture diameter	100 mm
Spatial resolution	5 mm
Number of points for analysis	380
Maximum tilt	±1.5 mrad
Minimum curvature	±32 m
Repeatability RMS	1.7 nm
Absolute accuracy RMS	$\lambda/100$ *
Relative accuracy RMS (at maximum angular source size <0.35 mrad)	$\lambda/400$
Relative measurement accuracy P-V (within 90% of input aperture)	$\lambda/100$
Tilt measurement sensitivity	70 nrad
Curvature measurement sensitivity	370 km
Acquisition frequency	1000 Hz
Processing frequency	up to 1000 Hz
Hartmann image acquisition	8/10 bit
Working wavelength	350-1100 nm
Calibrated waveband	400 nm
Maximal exposure (at wavelength 670 nm)	2 pJ/cm ²
Working temperature	from +10 to +40 °C
Weight	15 kg
Dimensions	305x320x625 mm

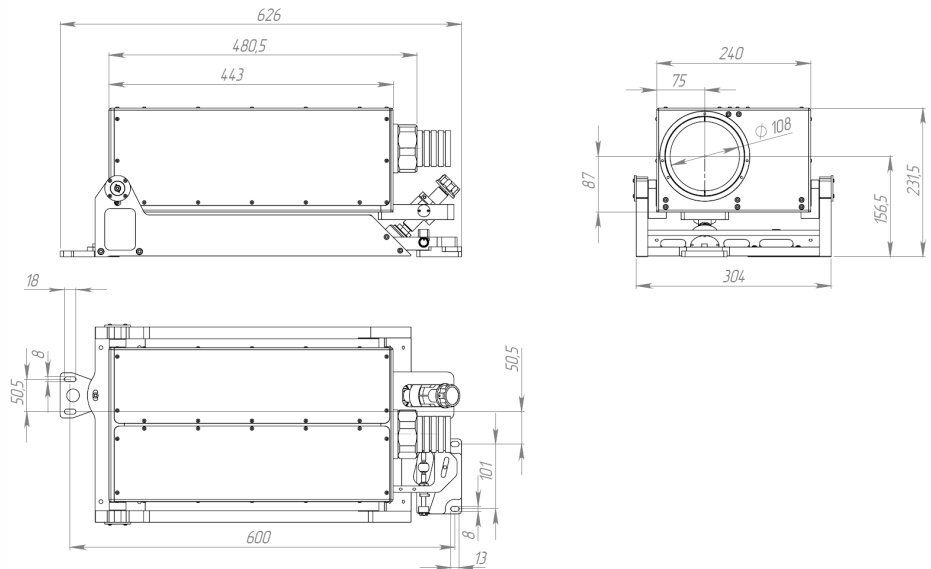
* Better accuracy available upon request



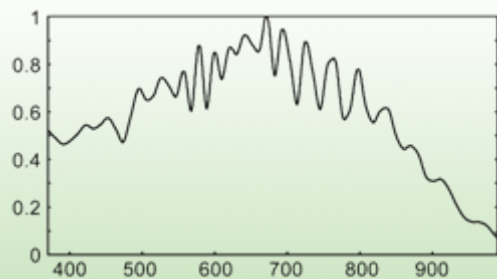
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Interface	CameraLink
Alignment camera connector	USB
Operating system	Windows 2000/XP/Vista/7/8 (32/64-bit)
Output data	<ul style="list-style-type: none"> • Sequence of raw hartmann images • Spot shift map • Wavefront aberration map (3D plot, 2D projection, synthesized interferogram, up to 55 Zernike polynomials) • Defocus/Curvature/Astigmatism • PSF (point spread function) • MTF (modulation transfer function) • Strehl ratio • M2 factor • Gauss-Hermite modes • Turbulence parameters C_n^2, R_0 and other

DIMENSIONS



SPECTRAL RESPONSIVITY



Wavelength, nm

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Part Number:
VC.SHAH-100-5-5.8-1000