

- The ShaH-10020 - 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-10020

TECHNICAL SPECIFICATIONS

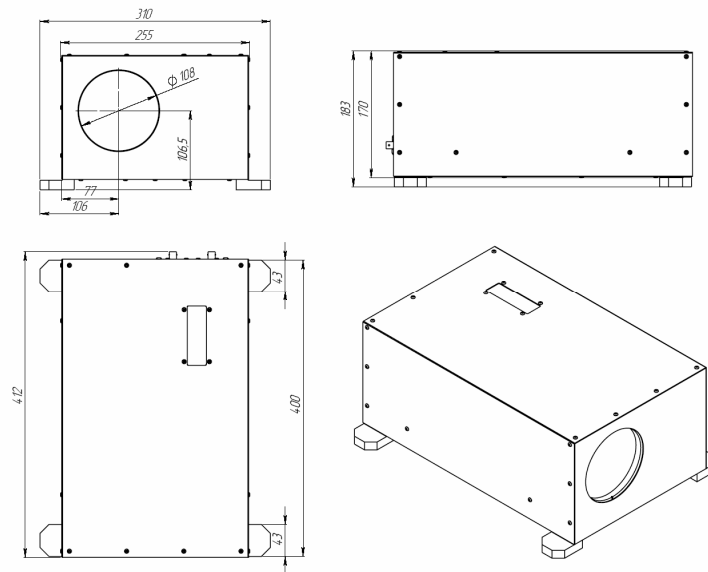
Aperture diameter	100 mm
Spatial resolution	480 μ m
Number of points for analysis	1500
Maximum tilt normal/extended mode	\pm 1.5/4.5 mrad
Minimum curvature	\pm 35 m
Repeatability RMS	0.4 nm
Absolute accuracy RMS	λ /100 *
Relative accuracy RMS (at maximum angular source size <3 mrad)	λ /1800
Relative measurement accuracy P-V (within 90% of input aperture)	λ /450
Tilt measurement sensitivity	0.015 μ rad
Curvature measurement sensitivity	1600 km
Acquisition frequency normal/binning mode	20/60 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)	0.05 nJ/cm ²
Working temperature	from 0 to +40 °C
Weight	15 kg
Dimensions	400x170x255 mm

* Better accuracy available upon request



Interface/power supply	USB-2
Synchronization connector	Mini DIN
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

