• The ShaH-021300 - 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
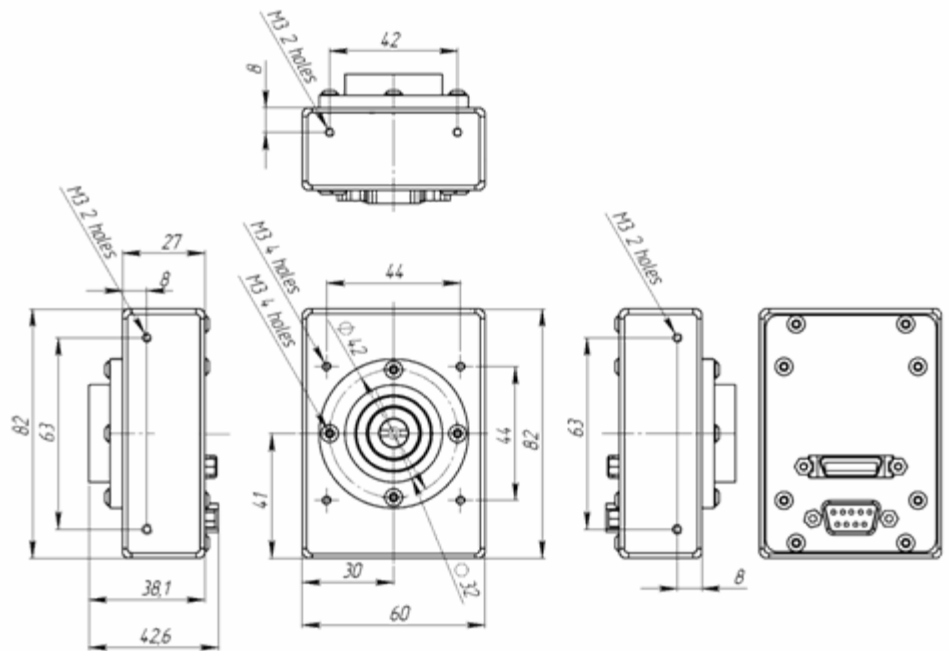
WaveFront Sensor ShaH-021300

TECHNICAL SPECIFICATIONS

Aperture diameter	2.5 mm
Spatial resolution	250 µm
Number of points for analysis	90
Maximum tilt	±50 mrad
Minimum curvature	±0.02 m
Repeatability RMS	1.5 nm
Absolute accuracy RMS	λ/100 *
Relative accuracy RMS (at maximum angular source size <5 mrad)	λ/400
Relative measurement accuracy P-V (within 90% of input aperture)	λ/100
Tilt measurement sensitivity	2.2 µrad
Curvature measurement sensitivity	280 m
Acquisition frequency normal/binning mode	1300 Hz
Processing frequency	up to 1300 Hz
Hartmann image acquisition	10 bit
Working wavelength	400-1000 nm
Calibrated waveband	200 nm
Maximal exposure (at wavelength 700 nm)	0.08 nJ/cm^2
Working temperature	from +10 to +40 ˚C
Weight	280 g
Dimensions	82x60x42 mm

Better accuracy available upon request

VISIONICA

WaveFront Sensor ShaH-021300

CameraLink Cable	MDR Male-to-Male
Operating system	Windows 2000/XP/Vista/7/8 (32/64-bit)
Output data	• 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

Part Number:
VC.SHAH-2.5-0.25-2.2-1300