• The ShaH-1515 - 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
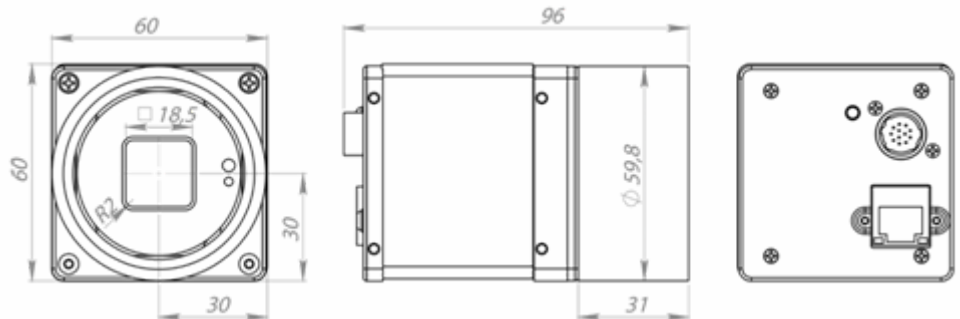
WaveFront Sensor ShaH-1515

TECHNICAL SPECIFICATIONS

Aperture diameter	15 mm
Spatial resolution	150 µm
Number of points for analysis	9500
Maximum tilt	±25 mrad
Minimum curvature	±0.3 m
Repeatability RMS	0.5 nm
Absolute accuracy RMS	λ/100 *
Relative accuracy RMS (at maximum angular source size <10 mrad)	λ/1500
Relative measurement accuracy P-V (within 90% of input aperture)	λ/350
Tilt measurement sensitivity	0.13 µrad
Curvature measurement sensitivity	30 km
Acquisition frequency normal/binning mode	15/30 Hz
Processing frequency	up to 50 Hz
Hartmann image acquisition	8/10 bit
Working wavelength	300-1000 nm
Calibrated waveband	400 nm
Maximal exposure (at wavelength 480 nm)	1.3 nJ/cm^2
Working temperature	from +15 to +40 ˚C
Weight	220 g
Dimensions	60x60x96 mm

* Better accuracy available upon request

VISIONICA

WaveFront Sensor ShaH-1515

Interface	GigE Vision
Power connector	Hirose 12-pin
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-15-0.15-3-15