• **The ShaH-1068 - 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

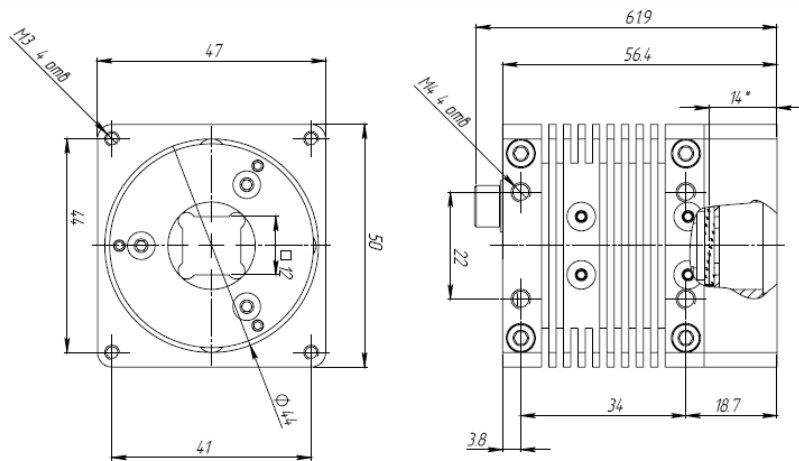**WaveFront Sensor ShaH-1068**

TECHNICAL SPECIFICATIONS

Aperture diameter	**10 mm**
Spatial resolution	**150 μm**
Number of points for analysis	**>5000**
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 <0.10 mrad)	**λ/1200**
Relative measurement accuracy P-V (within 90% of input aperture)	**λ/350**
Tilt measurement sensitivity	**0.13 μ rad**
Curvature measurement sensitivity	**30 km**
Acquisition frequency	**up to 68 Hz**
Processing frequency	**up to 68 Hz**
Hartmann image acquisition	**8/10/12 bit**
Working wavelength	**300-1000 nm**
Calibrated waveband	**400 nm**
Maximal exposure (at wavelength 670 nm)	**1.3 nJ/cm^2**
Working temperature	**from +5 to +40 ˚C**
Weight	**220 g**
Dimensions	**50x50x65 mm**

* Better accuracy available upon request

VISIONICA

WaveFront Sensor   ShaH-1068

Interface	IEEE 802.3 1000BASE-T, IEEE 802.3af (PoE)
Power	**PoE/12 V - 24 V**
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-10-0.15-3-68