heliInspect™

H9 / H9M

3D Inline-Metrology

heliotis

advancing 3D metrology

Large FOV Industrial WLI

For applications where conventional sensors reach their limits, the heliInspect™ H9 and H9M excel with true sub-micrometer height resolution. The unmatched performance of these industry grade White-Light-Interferometers are based on Heliotis next generation 3D-pixel sensor heliSens™ S4 and S4M.

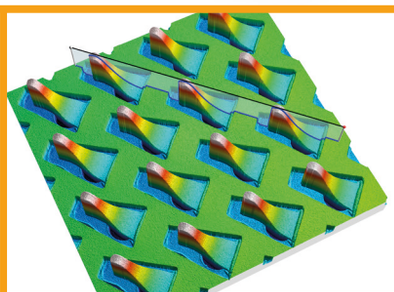
Measurement capability extended

- Height measurements with true sub-micrometer accuracy
- Unprecedented measurement speed
- Higher resolution in x, y at given FOV
- Highest intra-scene dynamic range
- Large set of optical magnifications

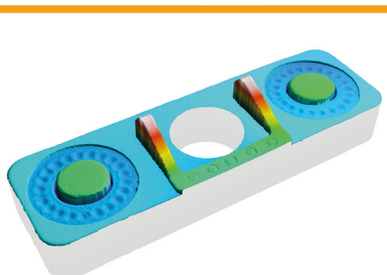
Integration as easy as a 2D camera

- Standard Gen<i>CAM interface
- On-camera services for standard tasks

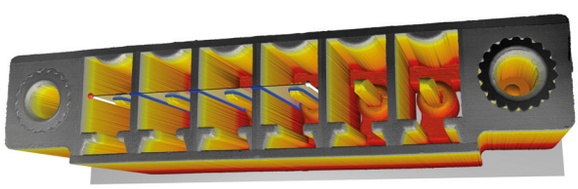
H9MDS0002



Planarity



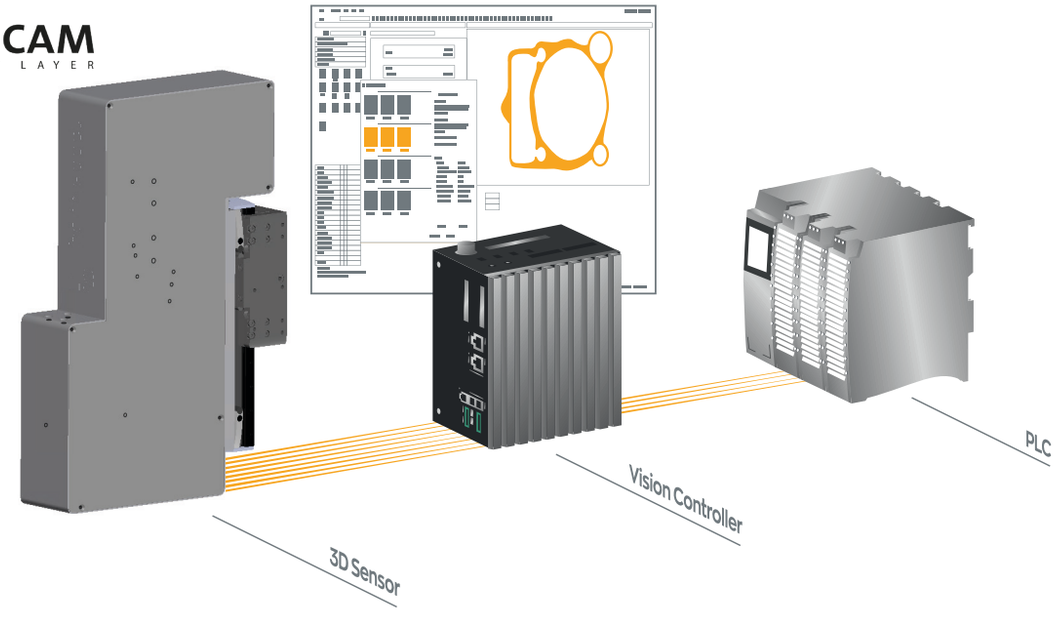
Geometry



Deep Cavities

Specifications for H9 / H9M

GEN<i>CAM TRANSPORT LAYER



heliInspect™ H9-M	Key Features
Measurement principle	White-Light Interferometer (industrial grade WLI)
Sensor	Heliotis lock-in imager heliSens™ S4/S4M, in-pixel signal processing
Camera board	FPGA based high-speed board, SOC, Linux OS, high-level interface through embedded heliService™
Light source	High-power LED, λ_c = 630 nm
Scanner	Linear motor, precision guides, stroke = 40 mm or 80 mm, standard resolution = 100 nm
Interfaces	Gen<i>Cam / GigE, GIO, power (24V)
Software	heliSDK™ for C++, C#, Halcon, Matrox, LabVIEW, Python

Configuration		3 x	2 x	1.5 x	1 x	0.8 x	0.5 x
Field of view [mm²]		4.10 x 4.35	6.14 x 6.53	8.19 x 8.70	12.29 x 13.06	15.36 x 16.32	24.58 x 26.11
Optical resolution [µm]	H9	8	12	16	24	30	48
	H9M	4	6	8	12	15	24
Working distance [mm]							
Standard		49	49	51	51	51	51
Long WD		n. a.	110	n. a.	113	113	113
Numerical aperture							
Standard		0.15	0.13	0.10	0.067	0.053	0.033
Long WD		n. a.	0.11	n. a.	0.067	0.053	0.033

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