

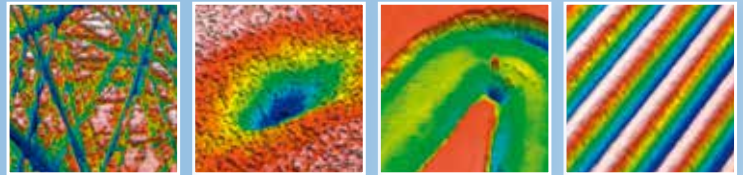
3-D surface measurement device

smartWLI prime

compact size
highly accurate
smooth and
rough surfaces
speedytec



smartWLI prime
combined with
Manual Stand



Measurement head	
Measurement principle	White-light interferometry
Z-Positioning system	piezo-based
Height measuring range [μm]	Up to 400
Measurement Array [Pixel]	1936x1216
Light source [nm]	LED 542
Vertical resolution [nm]	PSI: 0.1, VSI: 1.0
Max. scan speed [$\mu\text{m/s}$]	48
Meas. Head overall dimension [mm^3]	235x80x128 (HxWxD)
Measuring head mass [kg]	2
Computer, OS	PC or Laptop with Windows 7
Measurement time by z-range 20 μm [s]	<3
Operating temperature [$^{\circ}\text{C}$]	10–35
Recommended working temperature [$^{\circ}\text{C}$]	18–22
Software	
smartWLI	Windows 7, 64bit Software for measuring the topography and for exporting the 3-D data using a direct interface to the MountainsMap [®] analysis software
smartWLI-SDK	SDK for measuring the topography for using in customer own software, Matlab or LabVIEW
Export format	ASCII, SUR, BCR-STM, BMP, JPEG, TIFF
MountainsMap [®]	Extensive analysis software as well as profile and 3-D visualisation, measurement data pre- and post-processing, DIN EN ISO roughness and height determination, serial processing, measurement logging
Objectives	
Magnification (MAG)	2,5x 5x 10x 20x 50x 100x
Numerical Aperture (NA)	0.075 0.13 0.30 0.40 0.55 0.70
Working distance (WD) [mm]	10.3 9.3 7.4 4.7 3.4 2.0
Field of view (FOV) [μm]	7203x4524 3601x2262 1800x1131 900x565 360x226 180x113
Pixel size [μm]	3.72 1.86 0.93 0.47 0.19 0.09
Optical resolution by Dawes [μm]	3.61 2.08 0.90 0.68 0.49 0.39
Stands	
Mobile Stand	Suitable for mounting on rollers larger a diameter of 60 mm or planar objects
Manual Stand	Manual XY-Stage (movement 73x55 mm^2)
Motorized Stand 75x50	Motorized XY-Stage (movement 75x50 mm^2)
Motorized Stand 100x100	Motorized XY-Stage (movement 100x100 mm^2)
Individual Stand	On request