Non-contact compact 3D optical profiler



SENSOFAR

**METROLOGY** 

# New compact 3D profiler



- Flexibility to measure a multitude of topographies and textures
- 3 technologies in 1, Confocal, Interferometry (VSI), and Focus Variation
- Compact design with a small footprint (275 x 365 x 510 mm) that integrates the sensor head, controller, and stand in the same platform.
- 40mm of Z travel with three position column for samples up to 150 mm
- Up to 33 objectives available
- Automated acquisition for inexperienced users
- Easy-to-use SensoSCAN software platform including suite of standard analysis tools
- Optional SensoMAP and SensoPRO LT software for advanced analysis
- 64-bit software to ensure the fastest measurements and quick analysis

# Objectives

## Brightfield

### Interferometric

MAGNIFICATION	2.5X	5X	10X	20X	50X	100X	150X	5X	10X	20X	50X	100X
NA	0.075	0.15	0.30	0.45	0.80	0.90	0.95	0.13	0.30	0.40	0.55	0.70
WD (mm)	6.5	23.5	17.5	4.5	1.0	1.0	0.2	9.3	7.4	4.7	3.4	2.0
FOV¹ (μm)	7016x5280	3508x2640	1754x1320	877x660	351x264	175x132	117x88	3508x2640	1754x1320	877x660	351x264	175x132
Spatial sampling² (μm)	5.16	2.58	1.29	0.65	0.26	0.13	0.09	2.58	1.29	0.65	0.26	0.13
Optical resolution³ (µm)	2.23	1.11	0.55	0.37	0.21	0.18	0.17	2.58	1.29	0.65	0.25	0.20
Measurement time <sup>4</sup> (s)		>3s						>3s				

	Confocal							VSI				
Vertical resolution⁵ (nm)	-	75	25	8	3	2	1	1 nm				
Maximum slope <sup>6</sup> (°)	-	8	14	21	42	51	71	8	14	21	25	42

#### Focus variation

Min. measurable roughness	Sa > 10 nm
Maximum slope (°)	up to 86°

1 Maximum field of view with 2/3° camera and 0.5X optics. 2 Pixel size on the surface. 3 L&S: Line and Space, half of the diffraction limit according to the Rayleigh criterion. Values for white LED. Spatial sampling could limit the optical resolution for interferometric objectives 4 For brightfield objectives, 21 scanning planes (confocal). 5 System noise measured as the difference between two consecutive measures on a calibration mirror placed perpendicular to the optical axis. 6 On smooth surfaces, up to 86° on rough surfaces. Other objectives are available.

#### HEADQUARTER

#### SENSOFAR METROLOG

Parc Audiovisual Catalunya Ctra. BV-1274, KM 1 | E-08225 Terrassa (Spain) Tel. (+34) 93 700 14 92 | Fax (+34) 93 786 01 16 info@sensofar.com

www.sensofar.com

#### SALES OFFIC

#### SENSOFAR US

8655 E Via De Ventura Suite G168 | Scottsdale, AZ 85258 T: 1 800 530 3097 | F: 1 419 745 1506 info@sensofarusa.com

www.sensofarusa.com

#### SENSOFAR AS

Room 102, Building C, No. 838, GUANGJI Road, HONGKOU District | 200434 Shanghai (China) Tel: (+86) 21 61400058 | Fax (+86) 21 61400059 info.asia@sensofar.com

www.sensofar.com