

NEW

Non-contact
3D optical
sensor



SENSOFAR®
METROLOGY

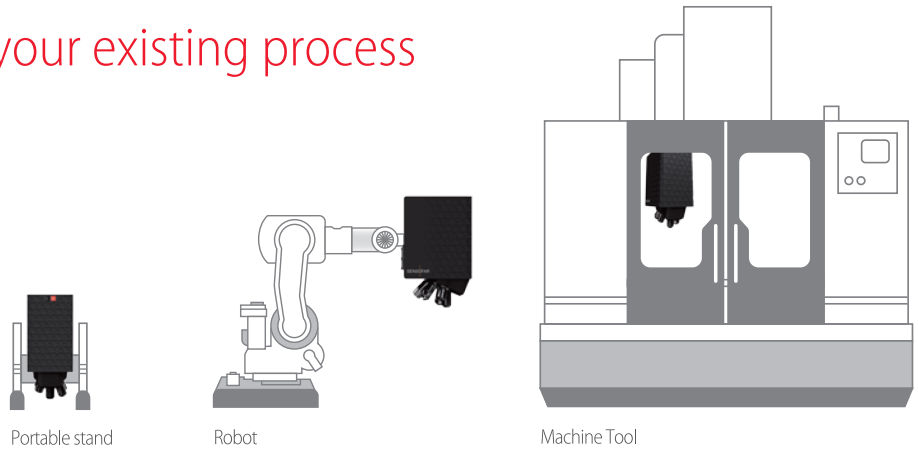


3D Optical Sensor

The in-line metrology solution

Perfectly adaptable to your existing process

- Three technologies in one sensorhead: confocal, interferometry (PSI, ePSI & VSI) and focus variation
- Extremely small and lightweight
- Controlled remotely by SDK



Weight only **6 kg**

Z travel range **40 mm**

Choose one of four **LED light sources**



Objectives

Brightfield

Interferometric

MAG	2.5X	5X	10X	20X	50X	100X	150X	2.5X	5X	10X	20X	50X	100X
NA	0.075	0.15	0.30	0.45	0.80	0.90	0.95	0.075	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	10.3	9.3	7.4	4.7	3.4	2.0
FOV ¹ (μm)	7016x5280	3508x2640	1754x1320	877x660	351x264	175x132	117x88	7016x5280	3508x2640	1754x1320	877x660	351x264	175x132
Spatial sampling ² (μm)	5.16	2.58	1.29	0.65	0.26	0.13	0.09	5.16	2.58	1.29	0.65	0.26	0.13
Optical resolution ³ (μm)	1.87	0.93	0.46	0.31	0.17	0.15	0.14	5.16	2.58	1.29	0.65	0.25	0.20
Measurement time ⁴ (s)	>3s							>3s					

Confocal

PSI / ePSI / VSI

Vertical resolution ⁵ (nm)	300	75	25	8	3	2	1	PSI/ePSI 0.1 nm VSI 1 nm					
Maximum slope ⁶ (°)	3	8	14	21	42	51	71	3	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 blue LED. Spatial sampling could limit the optical resolution for interferometric objectives. ⁴ For brightfield objectives, 21 scanning planes (confocal). For interferometric objectives, 10μm scanning range. ⁵ System noise measured as the difference between two consecutive measures on a calibration mirror placed perpendicular to the optical axis. For interferometric objectives, PSI, 10 phase averages with vibration isolation activated. ⁶ On smooth surfaces, up to 86° on rough surfaces. **Other objectives are available.**

HEADQUARTER

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