

INFINITEFOCUS SL

AS FAST AND INTUITIVE AS 3D SURFACE PROFILER CAN BE

THE SYSTEM

Traceable 3D measurement with color images

InfiniteFocusSL is a cost efficient optical 3D profile measurement system for easy, fast and traceable 3D measurement of form and finish on micro structured surfaces. Users are able to measure form and roughness of components with only one system. In addition, color images with high contrast and depth of focus are achieved. The robust frame and the intelligent illumination technology provide fast and high resolution measurement in laboratory and production near environment.

THE BENEFITS

Cost efficient, fast and intuitive

InfiniteFocusSL is particularly attractive due to its cost effectiveness, measurement speed and usability. The long working distance of up to 33mm in combination with the above average measurement field of 50x50mm allows a wide range of applications. Measurements are achieved within seconds, and features, such as a coaxial laser for quick and easy focusing enhance its usability.

THE APPLICATIONS

Robust design for universal use

Applications range from cutting edge measurement in tool industry to quality assurance and surface finish measurement of micro components and features on surfaces. InfiniteFocusSL is used in the automotive, aerospace, mold and medical device industries. Users also measure difficult to access surface positions including steep flanks or the roughness on, for example, the tooth root of a gear.



GENERAL SPECIFICATION

Travel range X/Y	manual option: 25x25mm motorized option: 50x50mm
Vertical travel range Z	130mm (26mm motorized)
Illumination	LED ringlight with 24 segments
Weight	15kg
Dimensions	195x316x418mm (WxDxH)

OBJECTIVES

		5x	10x	20x	50x	5x SX ²	10x SX ²	20x SX ²	50x SX ²
Sampling distance	μm	2	1	0.5	0.2	2	1	0.5	0.2
Min. repeatability (vertical)	nm	120	30	15	8	180	45	25	15
Max. scan height (approx.)	mm	22	16	12	9	25	25	19	12
Best vertical resolution ¹	nm	410	100	50	20	510	130	70	45
Working distance	mm	23.5	17.5	13.0	10.1	34	33.5	20	13
Field of view X	μm	4000	2000	1000	400	4000	2000	1000	400
Field of view Y	μm	4000	2000	1000	400	4000	2000	1000	400
Max. extended field of view	mm ²	2500	2500	2500	1100	2500	2500	2500	1100
Max. uni-directional measurement	mm	50	50	50	50	50	50	50	50

1) Vertical resolution can be adjusted in the IF-LaboratoryMeasurementModule
2) SX are objectives with higher working distance

RANGE OF RESOLUTION AND APPLICATIONS

		5x	10x	20x	50x	5x SX ²	10x SX ²	20x SX ²	50x SX ²
Min. measurable radius	μm	10	5	3	2	10	5	3	2
Min. measurable wedge angle	°	20	20	20	20	20	20	20	20
Min. measurable roughness (Ra)	nm	-	300	150	80	-	450	250	150
Min. measurable roughness (Sa)	nm	-	150	75	50	-	250	100	80

