

StraDex i 80 – 1.5

Applications:

- Diameter
- Length, Angle, Radius
- Surface waviness
- Roughness
- Thin layers (< 30 µm)

Object materials:

- Metal
- Ceramic
- Polymer
- Diamond and other coatings

Features:

(Interior-) Object:

Diameter range ¹	1.5 – 5 mm
Max. depth	35 mm

Sensor head:

CCD Camera	optional
Dimensions	61 x 61 x 188 mm ³
Weight	700 gr.

¹ Additional diameter-ranges: a) < 1.5 mm and/or b) 5 – 15 mm available on request.

Specifications:

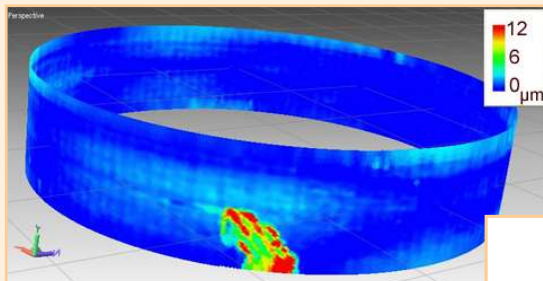
- Minimum spot size: 5 µm
- Maximum acquisition rate: 16 kHz
- Angular accuracy: 0.04°
- Accuracy¹: 0.5 µm
- Repeatability¹: 0.25 µm (3 sigma)
- Max. layer thickness²: 30 µm
- Employed wavelength: 830 nm

¹ For 1 kHz acquisition rate and vibration absorbing base (eg granite damped slab). The accuracies and repeatabilities can be increased at lower acquisition rates.

² For polymers, a refractive index of 1.5 is assumed.

Your Benefits:

- Rotating measurement rod, therefore fixed sample position
- Smallest interiors with a relatively large working range at few 100 nm resolution
- High aspect ratio (length/ diameter) of up to 25 / 1
- Very high acquisition rates of up to 16 kHz
- High lateral resolution by small spot size (> 5 µm)
- Surface topography, roughness, shapes, diameters within one scan
- Precise surface data even with (partly) transparent objects
- Steep slopes (sometimes > 60°)
- Negligible shadowing at very steep slopes
- Thin layers (coatings, oil film,..) without influence on the measurement.
- Thin layers (up to 30 µm) can be measured in the same scan



3D topography and actual target-shape comparison from a small cylinder with scratch

Detail 3D topography of the surface of a small cylinder (diameter: 3 mm) including a scratch. The maximum discrepancy from the ideal cylinder is 12 µm (at the scratch) as shown from the false color bar. The zoomed 3D representation exhibits further details.

