

MULTI LASER SCANNER

NIKON XC65Dx(-LS)

High Scanning Throughput



THE ULTIMATE LASER SCANNER
FOR FEATURE AND MORE

NIKON XC65Dx(-LS)

HIGH SCANNING THROUGHPUT

To meet the demands of Industry 4.0 and mutual customers, Nikon Metrology and WENZEL efficiently deliver innovative CMM-based laser scanning solutions. The expanded portfolio of optical sensors means that the right sensor can be offered for every customer in terms of measurement time, accuracy and level of detail. CMMs in use can also be upgraded by WENZEL with the new optical sensors. All this is rounded off by the use of the powerful WM | Quartis measurement software.

The XC65Dx(-LS) laser scanner with multiple laser function captures all 3D details of features, edges, pockets, ribs and free-form surfaces in a single scan. Thanks to fully digital 3D digitizing, the number of scans per unit of time (scan frequency) increases. Laser intensity is intelligently adjusted to each surface without manual intervention.

FEATURES

- **Patented multi-strip laser technology** captures the object from 3 directions
- **High speed digital technology** increases scanning frequency
- **Unique point-to-point** laser intensity adaption
- **Non-contact laser scanning** is ideal to measure flexible or fragile parts
- **Long stand-off variant** for optimum capture into deep pockets and slots

APPLICATIONS

The feature scanner is ideal for gap and flush measurements as well as for applications where a large distance to the component is generally required.

- Sheet metal vehicle body parts
- Driveling casting inspection (engine castings, etc.)
- Plastic molding and blow molding (composite fuel tanks, plastic body parts, etc.)
- Inspection of 2D and complex 3D features
- Gap and flush of door/fender splines



TECHNICAL DATA

	XC65Dx	XC65Dx-LS
Probing error MPE_p^1 [μm]	12	15
Ball bar length (MPE_E) ² [μm]	4 +L/350	4 +L/350
Multi-stylus test (MPE_{AL}) ³ [μm]	9	9
Maximum point rate [points./s]	max. 3 x 25.000	max. 3 x 25.000
FOV Width [mm]	max. 3 x 65	max. 3 x 65
FOV Depth [mm]	3 x 65	3 x 65
Working distance [mm]	75	170
Laser safety	2	2
Probe head compatibility	PH10M, PH10MQ, PHS	PH10M, PH10MQ, PHS

All accuracy specifications valid for a CMM with an accuracy of $2\mu\text{m} + L/350$ or better using manufacturer supplied test sphere

¹Nikon Metrology Test comparable to ISO 10360-2 MPE_p using 1σ sphere fit.

²Nikon Metrology Test comparable to ISO 10360-2 MPE_E

³Nikon Metrology Test comparable to ISO 10360-5 MPE_{AL}

YOUR ADVANTAGES AT A GLANCE

■ Full 3D capture of complex surfaces and feature geometries

Patented multiple laser function | Detection of features, edges, pockets, ribs and free-form surfaces in just one scan | Integration of three lasers arranged in a cross pattern

■ High scanning throughput

Wider laser stripe and ultra-fast CMOS camera technology | Faster data acquisition | Reduction of measurement cycle time

■ Faster feature checking

Cross Scanner generates a complete 3D view with only one scan | No time-consuming re-alignments of the probe head

■ High flexibility

Unique adjustment of laser intensity for each individual point | Ideal for measuring flexible or fragile parts | Easy retrofit of existing CMM installations

INNOVATION MEETS TRADITION

The WENZEL Group is a market leader in innovative Metrology. WENZEL offers a comprehensive product portfolio in the fields of Coordinate Metrology, Computed Tomography and Optical High Speed Scanning. The technology of WENZEL is used in all industries, including the automotive sector, aeronautics, power generation and

medicine. WENZEL looks at today on an installed base of more than 10,000 machines worldwide. Subsidiaries and agencies in more than 50 countries support sales and provide after-sales service for our customers. The WENZEL Group today employs more than 600 people.



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