

kolibri Flex 80

Optical 3D measuring machine for small parts

Conceptual design

- Automated optical 3D digitizer
- Complete record of object surface without reference markers or matching procedures
- MULTview technology by 3-camera system and pivoted motorized rotation stage
- Detailed and complete measurement results – sensor unit captures and illuminates the object from two different height positions by innovative mirror set up
- Very robust against environmental influences (long term shifts) because of self-calibration
- High ability for reproduction because of predefined measuring schemes
- Easy handling

Fields of application

- Quality inspection
3D deviation analysis to CAD data
3D and 2D dimensioning
Geometric dimensioning and tolerancing (GD&T)
- Reverse Engineering
Rapid technologies
Digital mock-up
- 3D-visualization and virtual reality

Measuring principle

- Triangulation with the help of digital fringe projection in combination with photogrammetric methods
→ Phasogrammetry

Modification

- Bisection of measurement volume corresponding with doubled resolution → kolibri Flex 40

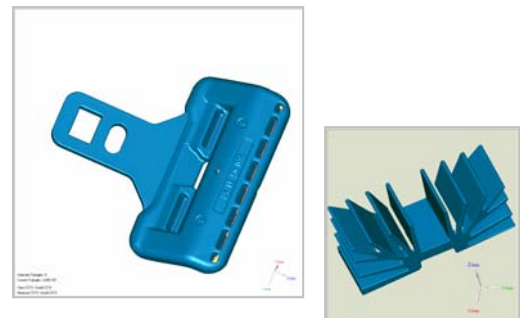
Technical parameter

- Measurement volume: max. Ø 80mm, height 25mm
- Data capturing time: 3 min
- Measuring uncertainty: 5 µm
- Point distance: 0.05-0.08mm
- Dimensions: 530 x 400 x 480 mm³

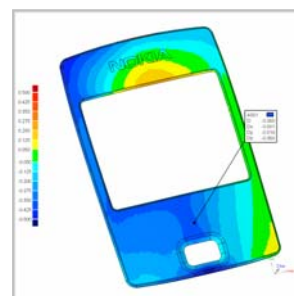
Competence in optical measuring technology



3D measuring system kolibri Flex 80



STL surface (seatbelt buckle, cooling part)



Deviation analysis to CAD (cover of a mobile phone)



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