

1. Goal and purpose

The description of the service offered includes a list of the CMMs used as part of the accreditation. Information about the manufacturer, type, measurement software used, measuring volume, limits for the specified performance characteristics (limits in accordance with the applicable VDI/VDE or ISO standards) and examples of the lowest possible uncertainties of measurement are to be documented.

2. Place of fulfilment

The service is provided solely in facilities on the Nürtingen site in Germany.

3. Description of the accredited activity

Implementation and documentation, as well as, if necessary, evaluation against specifications of dimensional inspections and 3D nominal-actual comparison against CAD data on prototypes, initial samples, pre-series and series parts using tactile 3D coordinate metrology with the option of a rotary table as a fourth axis and Zeiss Calypso measurement software.

4. Description of the service offered

CMM	Measuring range (max.) [mm]	Specification	Examples of extended uncertainty of measurement	Remarks
ZEISS Prismo 12/18/10	X= 1175 Y= 1762 Z= 979	$E_0, MPE = 1.50 \mu m + 2.86 \cdot 10^{-6} \cdot l$ in acc. with DIN EN ISO 10360-2:2010-06 $P_{Form.Sph.1 \times 25:SS:Tact,MPE} = 1.5 \mu m$ in acc. with DIN EN ISO 10360-5:2020-11 $P_{Form.Sph.Scan:PP:Tact,MPE} = 3.5 \mu m$ in acc. with DIN EN ISO 10360-5:2020-11 $MPE_{FR} : 4.50 \mu m$ $MPE_{FT} : 4.50 \mu m$ $MPE_{FA} : 3.50 \mu m$ in acc. with DIN EN ISO 10360-3:2000-08	$\varnothing 100.0 \text{ mm}$ U: $1.5 \mu m$ Dist. 200.0 mm U: $2.5 \mu m$	l = length measured U = expanded uncertainty of measurement with $k = 2$ (corresponds to 95% probability within the range of values)
ZEISS Prismo 12/24/10	X= 978 Y=1956 Z= 815	$E_0, MPE = 1.50 \mu m + 2.86 \cdot 10^{-6} \cdot l$ in acc. with DIN EN ISO 10360-2:2010-06 $P_{Form.Sph.1 \times 25:SS:Tact,MPE} = 1.3 \mu m$ in acc. with DIN EN ISO 10360-5:2020-11 $P_{Form.Sph.Scan:PP:Tact,MPE} = 1.7 \mu m$ in acc. with DIN EN ISO 10360-5:2020-11	$\varnothing 100.0 \text{ mm}$ U: $1.5 \mu m$ Dist. 200.0 mm U: $2.5 \mu m$	l = length measured U = expanded uncertainty of measurement with $k = 2$ (corresponds to 95% probability within the range of values)

Note: The masculine terms used in this document are not gender-specific. These terms are used for reasons of readability and simplicity; they do not imply exclusion or judgement.

CMM	Measuring range (max.) [mm]	Specification	Examples of extended uncertainty of measurement	Remarks
ZEISS Prismo 7/9/7	X= 700 Y= 900 Z= 700	$E_{0, MPE} =$ $0.9 \mu\text{m} + 2.86 \cdot 10^{-6} \cdot l$ in acc. with DIN EN ISO 10360-2:2010-06 $P_{\text{Form.Sph.1}\times\text{25:SS:Tact,MPE}} =$ $1.0 \mu\text{m}$ in acc. with DIN EN ISO 10360-5:2020-11 $P_{\text{Form.Sph.Scan:PP:Tact,MPE}} =$ $1.7 \mu\text{m}$ in acc. with DIN EN ISO 10360-5:2020-11 $MPE_{FR} : 3.50 \mu\text{m}$ $MPE_{FT} : 3.50 \mu\text{m}$ $MPE_{FA} : 2.50 \mu\text{m}$ in acc. with DIN EN ISO 10360-3:2000-08	-	l = length measured

5. Terms / definitions / abbreviations

IMT = Industrial metrology
CMM = Coordinate measuring machine(s)

AA = Arbeitsanweisung (work instruction)
FB = Formblatt (form)

$E_{0, MPE}$ = Length measuring error

$P_{\text{Form.Sph.1}\times\text{25:SS:Tact,MPE}}$ = Single-stylus - form error

$P_{\text{Form.Sph.Scan:PP:Tact,MPE}}$ = Scanning form error

MPE_{FR} = Radial four-axis error

MPE_{FT} = Tangential four-axis error

MPE_{FA} = Axial four-axis error

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6. Applicable documents

AA-1030-003 Durchführung von Prüfungen mit Koordinatenmessgeräten im DAkKS-akkreditierten Bereich (Undertaking inspections using coordinate measuring machines in the DAkKS-accredited area)

7. Changes

Changes to the previous version are highlighted in yellow.

Date	Index	Change(s)
14.02.2025	001	New document