

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-K-21312-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 31.05.2022

Date of issue 31.05.2022

Holder of certificate:

**Carl Zeiss GOM Metrology GmbH**  
**Schmitzstraße 2, 38122 Braunschweig**

Calibration in the fields:

**Dimensional quantities**

**Coordinate measuring technology**

- **Application coordinate measuring machines**

*The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.*

*The certificate together with the annex reflects the status as indicated by the date of issue.*

*The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de/en/accredited-bodies-search.html>.*

Abbreviations used: see last page

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**This document is a translation. The definitive version is the original German annex to the accreditation certificate.**

Annex to the accreditation certificate D-K-21312-01-00

Permanent Laboratory

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement <sup>1)</sup>	Remarks	
Length Three dimensional coordinate standards for optical metrology	X: -65 mm to +65 mm	CL-GOM-V001-R01: 2021-03-02 Three dimensional photogrammetric measurement of circle center coordinates by an automatic measuring camera	<i>X-Y-coordinate</i> 1.1 μm		
	Y: -60 mm to +60 mm				
	Z: -5 mm to +5 mm				<i>Z-coordinate</i> 2.1 μm
	X: -165 mm to +165 mm		<i>X-Y-coordinate</i> $1.1 \mu\text{m} + 3 \cdot 10^{-6} \cdot  K $		K= X, Y
	Y: -125 mm to +125 mm		<i>Z-coordinate</i> 2.1 μm		
	Z: -5 mm to +5 mm		<i>X-Y-coordinate</i> $2.1 \mu\text{m} + 16 \cdot 10^{-6} \cdot  K $		
	X: -350 mm to +350 mm		<i>Z-coordinate</i> 4.1 μm		
	Y: -250 mm to +250 mm		<i>X-Y-coordinate</i> $4.1 \mu\text{m} + 16 \cdot 10^{-6} \cdot  K $		
	Z: -10 mm to +10 mm		<i>Z-coordinate</i> 8.8 μm		
	X: -1100 mm to +1100 mm				
Y: -700 mm to +700 mm					
Z: -10 mm to +10 mm					
Length standards for optical metrology	> 0 mm to 260 mm	CL-GOM-V001-R01: 2021-03-02 Three dimensional photogrammetric measurement of circle center coordinates by an automatic measuring camera and calculation of the Euclidean distance	$1.5 \mu\text{m} + 1.5 \cdot 10^{-6} \cdot L$	L= measured length	
	> 260 mm to 510 mm		$2.7 \mu\text{m} + 1.8 \cdot 10^{-6} \cdot L$		
	> 510 mm to 2400 mm		$4.5 \mu\text{m} + 2.5 \cdot 10^{-6} \cdot L$		

Abbreviations used:

CL-GOM-V Procedure instruction of Carl Zeiss GOM Metrology GmbH  
CMC Calibration and measurement capabilities

<sup>1)</sup> The expanded uncertainties according to EA-4/02 M:2013 are part of CMC and are the best measurement uncertainties within accreditation. They have a coverage probability of approximately 95 % and have a coverage factor of  $k = 2$  unless stated otherwise. Uncertainties without unit are relative uncertainties referring to the measurement value unless stated otherwise.