

# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

## **FARO Europe GmbH**

Lingwiesenstraße 11/2 D-70825 Korntal-Münchingen, Germany

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

## **CALIBRATION**

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <a href="www.anab.org">www.anab.org</a>.

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R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 25 January 2024 Certificate Number: L1147.04-1





### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

## FARO Europe GmbH

Lingwiesenstraße 11/2
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Antonio Paolini
0049-7150-9797-412

### **CALIBRATION**

Valid to: January 25, 2024 Certificate Number: L1147.04-1

### **Length-Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-) <sup>2</sup>	Reference Standard, Method, and/or Equipment
Articulated Arm Coordinate Measurement Machine (AACMM): Volumetric Performance	(0 to 0.9) m (0 to 2.2) m	(0.52 + 2.2 <i>L</i> ) μm 3.5 μm	ASME B89.4.22-2004 at 5.2, 5.3 and 5.4 ISO 10360-2:2001  Ball Bar  Kinematic Scale Bar
Effective Diameter	(3 to 25.4) mm	1.0 µm	Test Sphere
Articulated Arm Coordinate Measurement Machine (AACMM):			ISO 10360-12:2016 6.2, 6.3, 6.4
Probing Size Error (PSize)	Sphere Diameter: 25.4 mm	1.0 µm	Test Sphere
Probing Form Error (PForm)	Sphere Diameter: 25.4 mm	0.9 µm	Test Sphere
Articulated Location Error (LDia)	Sphere Diameter: 25.4 mm	1.7 μm	Test Sphere
Length Measurement Error, Unidirectional (EUni)	(0 to 1.05) m (0 to 1.36) m (0 to 1.8) m (0 to 2.11) m (0 to 2.42) m (0 to 2.64) m	3.1 µm 3.7 µm 4.0 µm 5.7 µm 6.4 µm 8.4 µm	Kinematic Scale Bar





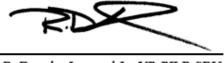
#### **Length-Dimensional Metrology**

Parame te r/Equipme nt	Range	Expanded Uncertainty of Measurement (+/-) <sup>2</sup>	Reference Standard, Method, and/or Equipment
Articulated Arm Coordinate Measurement Machine (AACMM):			B89.4.22-2004 and ISO 10360-12:2016
Single Point Articulation Performance	N/A <sup>4</sup>	0.41 μm	Test Sphere
Articulated Arm Coordinate Measuring Machines (AACMM) with Optical Distance Sensors: Articulated Location Value	Sphere Diameter: 50.8 mm	4.4 μm	Based on ISO 10360- 08:2013 Annex D Test Sphere
Laser Line Probe (LLP):	Cylinder Diameter:		Internal Procedure:
Diameter	25.4 mm 25.4 mm 25.4 mm	1.8 μm 3.8 μm 7.0 μm	Reference Cylinder
Z Distance/Position	(75 to 360) mm (80 to 230) mm	1.5 μm 2.9 μm	Calibrated Distance/ Position by Laser Interferometer
Faro Laser Tracker: Ranging Length Measurement	(0.04 to 25) m	$(2 + 0.4L)  \mu \text{m}$	ASME B89.4.19-2006: Reference Laser Tracker
Faro Laser Tracker: Transverse Length Measurement	(0.23 to 6.2) m	(8 + 1.2 <i>X</i> ) μm	ASME B89.4.19:2006 Reference Laser Tracker Kinematic Scale Bars
Faro Laser Tracker: Orientation Error of Six-DOF Probe	(2.5 to 10) m	2 μm	ISO 10360-10:2016

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (*k*=2), corresponding to a confidence level of approximately 95%.

#### Notes:

- 1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
- 2. L = Length in meters, X = the perpendicular distance from the tracker to the space frame.
- 3. FOV = Field of View.
- 4. Point measurements do not have a range.
- 5. This scope is formatted as part of a single document including Certificate of Accreditation No. L1147.04-1.



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