



#### EA MLA Signatory Český institut pro akreditaci, o.p.s. Olšanská 54/3, 130 00 Praha 3

issues

according to section 16 of Act No. 22/1997 Coll., on technical requirements for products, as amended

## CERTIFICATE OF ACCREDITATION

No. 559/2023

Výzkumný ústav geodetický, topografický a kartografický, v.v.i. with registered office Ústecká 98, 250 66 Zdiby, Company Registration No. 00025615

for the Calibration Laboratory No. **2292**Calibration Laboratory

Scope of accreditation:

Calibration of gauges in the field of length and plane angle to the extent as specified in the appendix to this Certificate.

This Certificate of Accreditation is a proof of Accreditation issued on the basis of assessment of fulfillment of the accreditation criteria in accordance with

#### ČSN EN ISO/IEC 17025:2018

In its activities performed within the scope and for the period of validity of this Certificate, the Conformity Assessment Body is entitled to refer to this Certificate, provided that the accreditation is not suspended and the Accredited Body meets the specified accreditation requirements in accordance with the relevant regulations applicable to the activity of an accredited Conformity Assessment Body.

This Certificate of Accreditation replaces, to the full extent, Certificate No.: 591/2018 of 13. 11. 2018, or any administrative acts building upon it.

The Certificate of Accreditation is valid until: 24. 10. 2028

Prague: 24. 10. 2023





Jan Velíšek
Director of the Department
of Testing and Calibration Laboratories
Czech Accreditation Institute

## Accredited entity according to ČSN EN ISO/IEC 17025:2018:

## Výzkumný ústav geodetický, topografický a kartografický, v.v.i.

CAB number 2292, Calibration Laboratory Ústecká 98, 250 66 Zdiby

#### CMC for the field of measured quantity:

#### Length

Ord. number <sup>1</sup>	Calibrated quantity / Subject of calibration	No min unit	minal r	ange max unit	Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty <sup>2</sup>	Calibration principie	Calibration procedure identification <sup>3</sup>	Work- place
1	Tape measures and rules of 2m length	0 m	up to	300 m		Q[6·L; 22] μm	Measurement using a laser interferometer (ČSN ISO 8322-2)	CP No. 1	1
2	Measuring wheels	0 m	up to	1,000 m		Q[0.0001·L; 0.01] m	Measurement using a caliper	CP No. 18	
3	Slide gauges	0 mm	up to	3,000 mm		23 μm	Measurement using parallel gauge blocks	CP No. 2	
4	Levelling instruments, rotating lasers (measurement of elevation)	0 m	up to	5 m		Q[2·L; 10] μm	Measuring using levelling rods and length rules (ČSN ISO 17123-2)	CP No. 3	
5*	Distance meters, geodetic baselines	0 m	up to	30 m		Q[0.1·L; 0.2] mm	Measurement using a laser interferometer	CP No. 5	
		30 m	up to	1,500 m		Q[1.6·L; 0.2] mm	Measurement using a length baseline and total station (ČSN ISO 17123-4)		
6	Length rules, Length gauges, Levelling rods, Track gauge	0 mm	up to	5,000 mm		Q[1.8·L; 18] μm	Measurement using a laser interferometer	CP No. 7	
7*	Gauges (spatial objects), angles, position (mutual position of two or multiple points, vectors, planes)	0 m	up to	250 m		Q[8·L; 30] μm	Measurement using a CMM	CP No. 12	
8	Feeler gauges, calibration sheets	0 mm	up to	25 mm		6 μm	Measurement using a micrometer calliper gauge	CP No. 17	
9	Measuring wedges	0 mm	up to	32 mm		0.1 mm	Measurement using a micrometer calliper gauge	CP No. 17	
10	Straightedges (measurement of flatness)	0 m		4 m		Q[0.02·L; 0.05] mm	Measurement using a level and levelling scales	CP No. 9	
11	Micrometer calliper gauges	0 mm		200 mm		4 μm	Measurement using parallel gauge blocks	CP No. 6	
12	Deviation meters	0 mm		100 mm		5 μm	Measurement using parallel gauge blocks	CP No. 6	
13	Laser scanners	0 m		55 m		Q[0.01·L; 1] mm	Measurement using a test field (ISO 17123-9)	CP No. 19	

Asterisk all the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

If the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes).

The expanded measurement uncertainty is in accordance with ILAC-P14 and EA-4/02 M a part of CMC and it is the lowest value of the respective uncertainty. If not stated otherwise, its coverage probability is approx. 95 %. If not stated otherwise, the uncertainty values stated without a unit are relative to the measured value. The uncertainty value stated herein is based on the best conditions achievable by the laboratory; the uncertainty value of a specific calibration may be higher depending on the conditions of such a calibration. For identical extreme values of adjacent ranges, the lower uncertainty value always applies.

# The Appendix is an integral part of Certificate of Accreditation No. 559/2023 of 24/10/2023

## Accredited entity according to ČSN EN ISO/IEC 17025:2018:

## Výzkumný ústav geodetický, topografický a kartografický, v.v.i.

CAB number 2292, Calibration Laboratory Ústecká 98, 250 66 Zdiby

CMC for the field of measured quantity:

Plane angle

Ord. number <sup>1</sup>	Calibrated quantity / Subject of calibration	No min unit	ominal ra ma		Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty <sup>2</sup>	Calibration principie	Calibration procedure identification 3	Work- place
1	Theodolites, Aero						Measurement using an angle (asimutal)	CP No. 4	
	Compasses	0 gon	up to	400 gon	horizontal direction	0.3 mgon	baseline (ČSN ISO 17123-3)		
		0 gon	up to	400 gon	horizontal angle	0.4 mgon			
		0 gon	up to	400 gon	zenith angle	0.5 mgon			
2	Levels for machinery,				1		Measurement using a baseline for angle	CP No. 8	
	builder's levels	-1 °	up to	1 °		22"	and slope		
3	Inclinometers						Measurement using a baseline for angle	CP No. 8	
		-90 °	up to	90 °		22"	and slope		

- Asterisk all the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.
- The expanded measurement uncertainty is in accordance with ILAC-P14 and EA-4/02 M a part of CMC and it is the lowest value of the respective uncertainty. If not stated otherwise, its coverage probability is approx. 95 %. If not stated otherwise, the uncertainty values stated without a unit are relative to the measured value. The uncertainty value stated herein is based on the best conditions achievable by the laboratory; the uncertainty value of a specific calibration may be higher depending on the conditions of such a calibration. For identical extreme values of adjacent ranges, the lower uncertainty value always applies.
- If the document identifying the test procedure is dated, only these specific procedures are used. If the document identifying the test procedure is not dated, the latest edition of the specified procedure is used (including any changes).

#### **Explanations and abbreviations:**

L (m) – Value measured

Q[a; b] – Quadratic sum