Technický a zkušební ústav stavební Praha, s.p.

CAB number. 2275, TZÚS Praha, s.p. Calibration Laboratory – TIS Branch Prosecká 811/76a, Prosek, 190 00 Praha 9

Calibration laboratory locations:

1. **Technický a zkušební ústav stavební Praha, s.p. – TIS Branch** Prosecká 811/76a, 190 00 Praha 9

3. **Technický a zkušební ústav stavební Praha, s.p. – Branch 0200** Nemanická 441, 370 10 České Budějovice

CMC for the field of measured quantity: Length

Ord. number ¹	Calibrated quantity / Subject of calibration	Nominal range			Parameter(s)	Lowest stated expanded		Calibration	Work
		min unit		max unit	of the measurand	measurement uncertainty ²	Calibration principle	procedure identification ³	place
1	Dial indicators	0 mm	to	100 mm		9 μm	Measurement on a spiral microscope	IP 0960K003	1
2	Slide gauges	0 mm	to	250 mm		0.015 mm	Measurement parallel gauge blocks	IP 0960K006	1
		250 mm	to	450 mm		0.03 mm			
		450 mm	to	1,000 mm		0.05 mm			
3 to 7	Reserved								
8	Electronic length sensors	0 mm	to	250 mm		0,01 mm	Measurement of parallel gauge blocks	IP 0960K005	1

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

Explanations and abbreviations:

L Measured length in m

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.

³ If the document identifying the calibration procedure is dated, only these specific procedures are used. If the document identifying the calibration procedure is not dated, the latest edition of the specified procedure is used (including any changes).

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CMC for the field of measured quantity: Flow

Ord. number ¹		Nomi	nal ra	ange	Parameter(s) of the	Lowest stated expanded		Calibration procedure identification ³	Work
	Calibrated quantity / Subject of calibration	min unit		max unit	measurand	measurement uncertainty ²	Calibration principle		place
1	Flowmeters that can be calibrated with water	$0.005 \text{ m}^3/\text{h}$	to	20 m ³ /h	cold water	0.15 %	Mass method	IP 0960K011	1
		$20 \text{ m}^3/\text{h}$ to			hot water	0.20 %			
				$200 \text{ m}^3/\text{h}$	cold water	0.15 %			
					hot water	0.20 %			
2	Flowmeters that can be calibrated with water	$0.005 \text{ m}^3/\text{h}$	to	$20 \text{ m}^3/\text{h}$	cold water	0.20 %	Volume method	IP 0960K011	1
					hot water	0.25 %			
		$20 \text{ m}^3/\text{h}$	to	$200 \text{ m}^3/\text{h}$	cold water	0.20 %			
					hot water	0.25 %			

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CMC for the field of measured quantity: Force, mechanical tests

Ord.	Calibrated quantity / Subject of calibration	Nominal range			Parameter(s) of	Lowest stated expanded measurement	Calibration principle	Calibration procedure	Workp
number ¹		min uni	t	max unit	the measurand	uncertainty ²	, , , , , , , , , , , , , , , , , , ,	identification ³	lace
1*	Force / tensile testing machines and	1 N	to	30 N	Tension	0.080 %	Loading with weights	IP 0960K072	1
	presses, working force gauges								
		20.11		200 N		0.040.0/	Comparison with a standard		
		30 N	to	200 N		0.040 %	force-proving instrument		
		200 N	to	20 kN		0.025 %			
		20 kN	up to	100 kN		0.060 %			
		1 N	to	30 N	Pressure	0.080 %	Loading with weights		
							Comparison with a standard		
		30 N	to	200 N		0.040 %	force-proving instrument		
		200 N	to	2 kN		0.025 %			
		2 kN	to	100 kN		0.040 %			
		100 kN	to	500 kN		0.070 %			
		500 kN	to	1 MN		0.090 %			
		1 MN	to	5 MN		0.025 %			
2	Hardness / Schmidt type hardness						Check impacts on a standard anvil	IP 0960K001	1
	testers (for concrete and other materials)	73 Rk	to	77 Rk	Type L	0.7 Rk			
		79 Rk	to	83 Rk	Type N	0.7 Rk			

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

Explanations and abbreviations:

R_k Offset value (dimensionless quantity) corresponding to 0.5 division of a scale

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CMC for the field of measured quantity: Pressure

Ord. number ¹	Calibrated quantity / Subject of calibration	Nomir min unit	nal rang max	unit	Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty ²	Calibration principle	Calibration procedure identification ³	Work- place
1	Deformation pressure gauges, electromechanical pressure gauges with pressure transducer or digital indication	0.025 MPa	to 60	MPa	positive gauge pressure liquid	0.08 %	Comparison with a standard piston pressure gauge	IP 0960K018	1

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CMC for the field of measured quantity: Temperature

Ord. number ¹	Calibrated quantity / Subject- of calibration	No	minal range	Parameter(s)	Lowest stated expanded		Calibration procedure identification ³	Work-
		min unit	max unit	of the measurand	measurement uncertainty ²	Calibration principle		place
1	Reserved							
2*	Direct-indicating thermometers, temperature measuring equipment	-40 °C 100 °C 250 °C 500 °C 900 °C	to 100 °C to 250 °C to 500 °C to 900 °C to 1,200 °C		0.3 °C 0.4 °C 1.4 °C 1.9 °C 2.7 °C	Comparison with a standard digital thermometer in a calibrated device	IP 0960K014	3
3 - 4	Reserved				· · · · · · · · · · · · · · · · · · ·			

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