

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

Hexagon Metrology s.r.o.
CAB number 2397, Calibration Laboratory
Boudníkova 2538/13, Libeň, 180 00 Praha 8

CMC for the field of measured quantity: Length

Ord. No. ¹	Calibrated quantity / Subject of calibration	Nominal range				Parameter(s) of the measurand	Lowest stated expanded measurement uncertainty ²	Calibration principle	Calibration procedure identification ³	Work-place
		min	unit	max	unit					
1*	Coordinate measuring machines								KP1 – SMS1	
	Spatial length	0 m		6 m			(0.25·L + 0.25) μm 0.1 μm	Measurement with parallel gauge blocks and step gauge		
	Sensing system error	0 mm		1 mm				Measurement of a calibration ball		
	Coordinate measuring machines								KP2 – SMS2	
	Spatial length	0 m		30 m			(0.5·L + 0.06) μm 0.1 μm	Laser interferometer measurements		
	Sensing system error	0 mm		1 mm				Measurement of a calibration ball		
	Coordinate measuring machines a laser sensor								KP5 – LASER	
	Dimension sensing	10 mm		50 mm			1.9 μm	Measurement of a calibration ball		
	Sensing of shape and scatter of sensing	0 mm		1 mm			2.0 μm	Measurement with white plate standard		
2*	Optical measuring machines with a multisensor								KP3 – OPTIKA	
	Spatial length	0 mm		600 mm			(1.1·L + 0.3) μm (0.2·L + 0.2) μm 0.1 μm	Measurement with parallel gauge blocks		
	Sensing system error	0 mm		1 mm				Glass ruler measurement Measurement of a calibration ball		
3	Measuring arms	0 m		4,5 m			(2.1·L + 2.2) μm	Measurement of a calibration ball and calibration rod	KP4 – RAMENA	
4	Laser trackers					Length				
	Distance measurement deviation	-0,05 mm		0,05 mm		1,5 m to 53m	5 μm	Measurement by reflector	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10)	
	Two face measurement deviation	-0,4 mm		0,4 mm		1,5 m to 53 m	6 μm	Measurement by reflector	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10), KP6 – TRAKČNÍ LASER 1	

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		min	unit	max	unit					
	Spatial length deviation	-0,5 mm	to	0,5 mm		1,5 m to 25 m	12 µm	Measurement of the scale bar by switching tactile probe or optical sensor (scanning)	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10), KP6 – TRAKČNÍ LASER 1	
	Spatial length deviation	-0,5 mm	to	0,5 mm		1,5 m to 25 m	9 µm	Measurement of the scale bar by reflector	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10), KP6 – TRAKČNÍ LASER 1	
	Size sensing deviation	-0,2 mm	to	0,2 mm		2 m to 20 m	6 µm	Measurement of a calibration ball	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10)	
	Form sensing deviation	0 mm	to	0,4 mm		2 m to 20 m	8 µm	Measurement of a calibration ball	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10)	
	Plane sensing deviation	0 mm	to	0,5 mm		2 m to 20m	12 µm	Measurement of the plate by an optical sensor (scanning)	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10)	
	Orientation deviation	0 mm	to	0,2 mm		2 m to 10 m	10 µm	Measurement by switching tactile probe	KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10)	
	Distance offset	-2,0 mm	to	2,0 mm		1,5 m to 15 m	7 µm	Measurement by self-calibration procedure	KP6 – TRAKČNÍ LASER 1, KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10)	
	Absolute distance meter modulation frequency	0 kHz	to	25 MHz			0.75 Hz	Rubidium frequency standard measurement	KP6 – TRAKČNÍ LASER 1, KP7 – TRAKČNÍ LASER 2 (ČSN EN ISO 10 360-10)	

¹ Asterisk at the ordinal number identifies the calibrations, which the Laboratory is qualified to carry out outside the permanent laboratory premises.

² 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).

L Measured length (m)