Specifications

Leitz Reference HP			**5.4.3**	**10.7.6 15.9.7 20.9.7**	**22.12.9 30.12.9 40.12.9 45.12.9**
Measuring Error MPE in µm		Temperature range			
according to ISO 10360-2 (2010)					
Volumetric length measuring error [1]	E_0	19°-21°C	0.7 + L / 400	0.9 + L / 400	
	E_{150}	19°-21°C		0.9 + L / 350	
Option XT	E_0 / E_{150}	15°-30°C	1.2 + L / 250	1.2 + L /250	
	E_0 / E_{150}	18°-22°C			1.5 + L / 350
Option XT	E_0 / E_{150}	18°-28°C			1.8 + L / 300
Repeatability range [2]	R_0		0.45	0.6	0.7
according to ISO 10360-4 (2000)					
Single stylus Form error, scanning [3]	THP		1.6 / 45s	1.9 / 45s	2.1 / 45s
according to ISO 10360-5 (2011)					
Single stylus Form error [2]	P_{FTU}		0.8	1.0	1.2
Multi styli Form error [4]	P_{FTM}		2.3	2.4	2.7
Multi styli Size error [4]	P_{STM}		0.6	1.2	1.4
Multi styli Location error [4]	P_{LTM}		1.6	1.8	2.0
according to ISO 12181					
Form measurement error [5]	RONt		0.9	1.0	1.3

Permitted Environmental Conditions	
Temp. gradient, hour/day/meter	19°-21°C: 1/1.2/1 K; 18°-22°C: 1/2/1 K; 15°-30°C: 2/5/2 K
Relative air humidity	30 % – 70 %, non condensing

Throughput			
Max. probing frequency	35 / min	40 / min	40 / min
Max. acceleration	4000 mm/s²	3300 mm/s²	3300 mm/s²
Max. positioning speed	450 mm/s	520 / mm/s	520 / mm/s

[1] E_0, E_{150} and R_0 are valid for a length gauge with an uncertainty of calibration of ≤ 0.08 + 0.3 x L/1000.
for a length gauge with a calibrated coefficient of expansion (CTE) between 8 x 10^{-6}/K and 13 x 10^{-6}/K.
for measuring length up to 2/3 of the diagonal; for measuring lengths of more than 1000 mm the availability of adequate gauges has to be confirmed with the manufacturer repectively with the local representative.

[1] [2] E_0, R_0 and P_{FTU} are valid for Leitz styli ø 3 x 35 mm up to ø 8 x 130 mm, without extension; anywhere in the measuring volume (HP 5.4.3: ø 3 x 35 mm up to ø 8 x 50 mm).

[3] THP is valid for a Leitz stylus ø 5 x 80 mm.

[4] P_{FTM}, P_{STM}, P_{LTM} are valid for 5 Leitz styli ø 5 x 80 mm (for Reference 5.4.3: Leitz stylus 5 x ø 1.5 mm, L = 53 mm). To be tested near the reference sphere.

[5] RONt (MZCI) is valid for a Leitz stylus ø 5 x 80 mm, filter 50 UPR, with precision calibration. Verification with QUINDOS only.
Form measurement error (roundness) at a ø 50 mm ring gauge, in scanning mode, acc. to EN ISO 12 181 (VDI/VDE 2617, part 2.2).

Specifications for acceptance test with ball plates on request.
Specifications are valid only with original Leitz accessories.