

Measuring system parameters	EPP-2
Probe design	Dual probe system LM-2-20
Probing forces	upper probe < 1 N lower probe < 0.5 N constant over the entire measuring range
Repeatability	<5 nm
Resolution	0.1 nm
Measuring uncertainty	U=0.02 µm + 0.48 µm/m k=2
Probe tip	3 mm diameter ruby sphere, M 2,5 mm thread
Gauge block measuring range	0.5 mm ... 100 mm
Measurement configuration	Abbe-error-free probing with 2 interferometric probes
Support design	<ul style="list-style-type: none"> <li>- flat, with venting grooves</li> <li>- steel, polished, adhesion of surfaces is prevented</li> <li>- size 150 mm x 150 mm available</li> </ul>
Allowable gauge blocks cross section	rectangular, square
Scale type	
Scale type	Frequency-stabilized He-Ne laser for both probes
Laser frequency stability	$<2 \cdot 10^{-8}$
Laser wavelength	632.8 nm Laser source is accessible for external calibration
Compensation of air refractive index	<ul style="list-style-type: none"> <li>- Temperature, air pressure, humidity sensors</li> <li>- Automatic corrections by Edlen-Formula</li> <li>- Manual entry of sensor values for correction is possible</li> </ul>
External calibration of temperature sensors	possible
External calibration of pressure sensor	possible
Laser lifetime	>25,000 h
Gauge Block Handling	
Positioning systems for gauge blocks	x-y-z manual, automatic (/A version)
Stage motor design	thermally isolated from the instrument
Gauge block templates	<ul style="list-style-type: none"> <li>- three rectangular gauge blocks</li> <li>- two rectangular gauge blocks and one square gauge block</li> </ul> The cross-sectional dimensions are as specified in ASME B89.1.9 and ISO 3650.

# Gauge block comparator EPP-2

Measuring procedure	EPP-2
Measuring time	~ 5 sec per sample
Optimization of the upper probe travel range	available
Software	<ul style="list-style-type: none"> <li>- SIOS open hardware library</li> <li>- Measurement sequence customization by user is possible</li> <li>- GUI Interface</li> </ul>
Interfaces	RS-232, USB
Geometric data	
Dimensions (W x D x H):	320 x 500 x 500 mm
Mass:	88,4 kg
Electrical Data	
Cable length between sensor head and electronics unit	3 m, optional up to 6 m
Power supply	100...240 VAC / 47...63 Hz
Laser protection class according to EN 60825-1:2014 and ANSI Z136.1 (CDRH)	I

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