

Nanopositioning platform

NPP-1

System parameter	NPP-1
Positioning measurement range	area Ø 100 mm
Lateral measurement resolution	≤ 0.02 nm
Repeatability	< 2 nm
Travelling range in rz	max. 60 arcsec, zero point control
Metrological traceability	3 fiber-coupled differential laser interferometer
Laser wavelength	633 nm
Laser frequency stability	< 2 · 10 ⁻⁸
Positioning speed	20 mm/s
RMS servo error	< 2 nm RMS
Mirror base body	Zerodur or quartz
Pickup of the wafers with wafer chuck, optional	ceramic
Payload	5 kg
Positioning	Point-to-point, path generator
Media required	Compressed air 6 bar, filtered, dried, deoiled
AFM (possible options)	
AFM measurement (force control)	
Lithography Mode, FN emission control	
FN power source	
x, y, z, piezo scanner	30 x 30 x 10 µm
Linearization	capacitive
Long-range visualization optics	
Geometric data	
Dimensions (W x D x H):	820 x 710 x 800 mm
Mass:	300 kg
Electrical Data	
Interfaces standard	RS232C, USB
Other interfaces on request	
Cable length between sensor head and electronics unit	3 m, optional up to 10 m
Power supply	100...240 VAC / 47...63 Hz
Laser protection class according to EN 60825-1:2014 and ANSI Z136.1 (CDRH)	2M II

04/2022 · Subject to change.