

Calibration Interferometer

SP 15000 C5 Series

System parameter	SP 15000 C5		SP 15000 C5 with compact straightness
Length measurement: Measuring range (on request up to 50 m) Resolution			15 m <1 nm
Angle measurement: Measuring ranges of pitch and yaw angles Resolution			±5° 0.004 µrad*
Straightness measurement Measuring range, lateral Resolution Axial range	±4 mm	10 nm	±2 mm 0.1...3 m
Roll angle measurement (optional with RAS 175 W): Measuring range Resolution			±1° 0.2 arcsec
Measuring uncertainty under stable conditions: Length measurement Angle measurement Straightness measurement Roll angle measurement			±0.1 ppm ±0.04 % ± 0.009 arcsec ±0.1 % ± 0.1 · M ² ± 0.1 µm ±0.5 arcsec ±0.5% (19°C – 21°C) ±0.5 arcsec ±1.5% (15°C – 25°C)
Beam distance (horizontal and vertical)			50 mm
Wavelength			632,8 nm
Frequency stability of the HeNe laser			2 · 10 ⁻⁸
Warm-up time of the HeNe laser			20 min
Operating temperature range			15...30°C
Max. displacement speed of measuring reflector			500 mm/s
Geometric Data			
Dimensions (L x W x H): Sensor head with adjustable mount Reflector unit Straightness mirror (standard) Straightness mirror (up to 3.5 m axial range) Electronic evaluation and supply unit EU Roll angle sensor RAS 175 W (optional)		[192 x 192 x 122] mm [104 x 62 x 104] mm [230 x 40 x 47] mm - [450 x 450 x 150] mm	[74 x 70 x 74] mm [234 x 43 x 49] mm [110 x 33 x 30] mm [450 x 450 x 150] mm [74 x 54 x 77] mm
Mass: Sensor head with adjustable mount Reflector unit Straightness mirror Electronic evaluation and supply unit EU Roll angle sensor RAS 175 W (optional)		850 g	3.3 kg 570 g 1 kg 11 kg 425 g
Electrical Data			
Interfaces Standard other interfaces on request (/R)			USB
Cable length sensor head - electronics unit			6 m, optionally up to 10 m
Power supply			100...240 VAC / 47...63 Hz
Laser safety class according to EN 60825-1:2014 and ANSI Z136.1 (CDRH)			2M II

*least significant bit (LBS)