

목록

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System parameter	SP 5000 NG	SP 15000 NG
Measurement range	0 m to \geq 5 m	\leq 80 m
Resolution	5 pm*	
Maximum tilting angle Center of rotation in center of reflector with plane mirror	$\pm 12.5^\circ$ ± 1.5 arcmin	$\pm 22.5^\circ$ -
Wavelength	632.8 nm	
Frequency stability of HeNe laser (after warm-up time)	$2 \cdot 10^{-8}$	
Warm-up time of HeNe laser	10...20 min	
Operating temperature range	15...30°C	
Maximum displacement speed	s3 m/s	
Geometric Data		
Dimensions (L x W x H): Sensor head with adjustable mount Reflector Electronic supply and evaluation unit (standard) Electronic supply and evaluation unit (compact)	[133 x 91 x 54] mm \varnothing 15 mm x 15 mm	max. [227 x 91 x 67] mm \varnothing 25 mm x 36 mm [450 x 400 x 150] mm [250 x 400 x 150] mm
Mass: Sensor head with adjustable mount Reflector Electronic evaluation and supply unit EU (standard) Electronic evaluation and supply unit EU (compact)	650 g 8 g	max. 820 g 70 g ca. 8 kg ca. 5.7 kg
Electrical Data		
Interfaces Standard other interfaces on request (/R)	RS232C, USB	
Cable length between sensor head and electronics unit	3 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	

*in frequency domain

05/2020 · Subject to change.



SP 5000 NG

Product information

Single-beam laser interferometer measurement system for high-precision length measurement

Laser interferometer measurement system

SP 5000 NG

Reliable, high-precision results are essential for length measurements and calibrations of guides, measurement tables, microscope tables and positioning tables, measurement and tooling machines, and for multi-coordinate measurements of surfaces. Our universal length measurement system SP 5000 NG is the right solution for your measurement tasks.

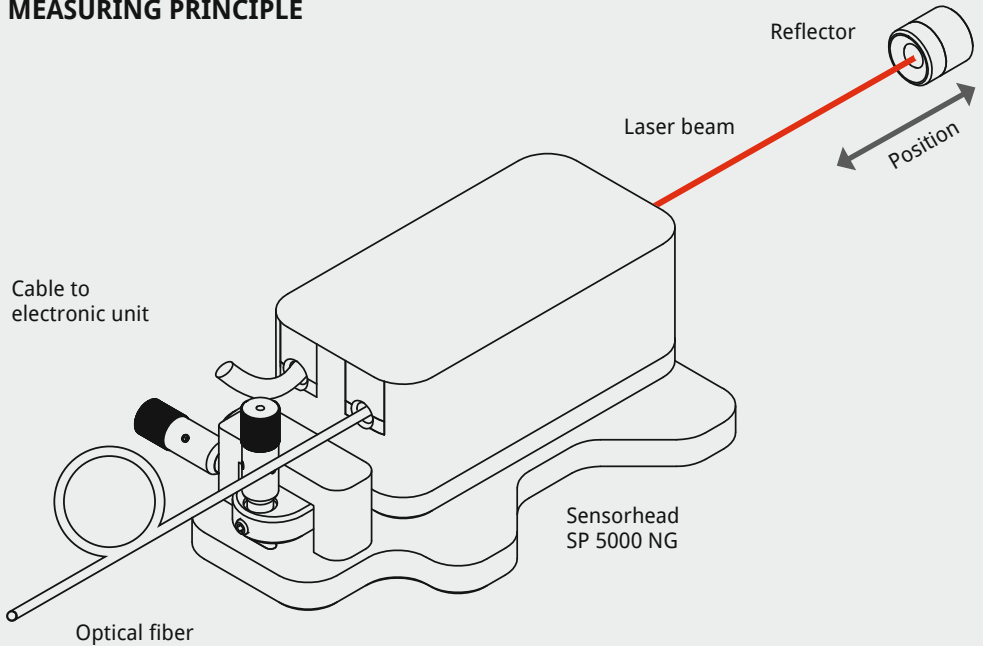
The SP 5000 NG is particularly easy to operate and can be quickly and comfortably adjusted. It delivers high-precision measurement results in various environments and minimises alignment errors.

The laser interferometer has a compact and robust design, with a splash-proof housing and sheathed fibre cables. This makes the SP 5000 NG the ideal length measurement system for high-precision measurements in industry and research as well as for use as an OEM measurement device.



Perpendicularity measurement in a tooling machine

MEASURING PRINCIPLE

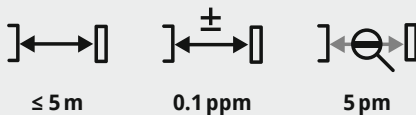


Key data and applications

- Single measurement beam for measurement arrangements that are free of Abbe errors
- Reliable tilting up to $\pm 12.5^\circ$ with reflector
- Suitable for x-y positioning when using plane mirrors
- Compact device with case for mobile use
- OEM versions and vacuum version are possible

Ideal for

- Calibration
- Quality assurance
- Development
- Science/research
- OEM applications



Accessories



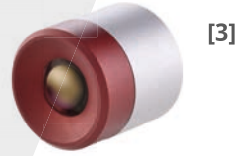
[1]

magnetic fastening



[2]

screw fastening



[3]

[1] Reflector unit with magnetic fastening

[2] Reflector unit with screw fastening

[3] Reflector for SP 5000 NG

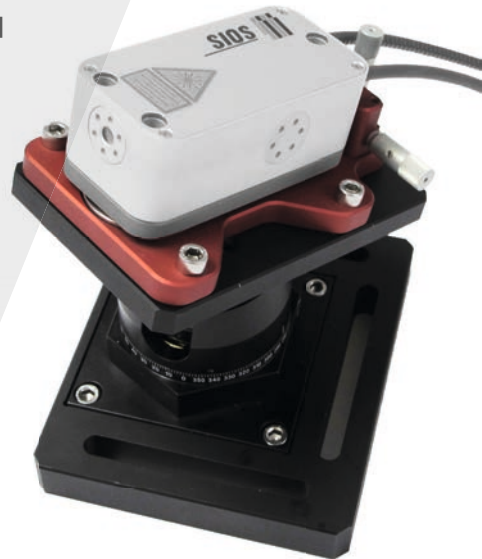
[4]



[5]



[6]



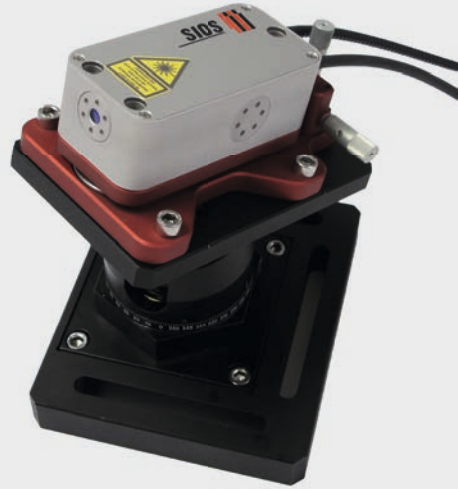
[4] 90° beam deflection attachment

[5] Beam direction alignment unit for OEM version

[6] Ball-joint table for SP-NG sensor head

SPATIAL DIAGONAL MEASUREMENT

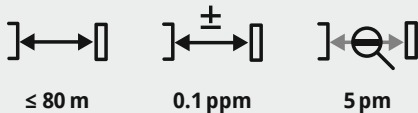
Spatial diagonal measurements make it possible to determine the perpendicularity and deformation of the machine coordinates of coordinate measuring and tooling machines. In addition to the standard system, a perpendicularity set also contains the ball reflector unit, the ball-joint table for the sensor head, a case and the InfasMTCAL software.



LONG-RANGE MEASUREMENT

A measurement attachment allows measurement ranges of up to 80 m to be achieved.

Sensor head SP 15000 NG
and reflector





PRECISION & QUALITY
MADE IN GERMANY

For customer-specific versions, OEM applications or integration in special measurement stations, please contact us.

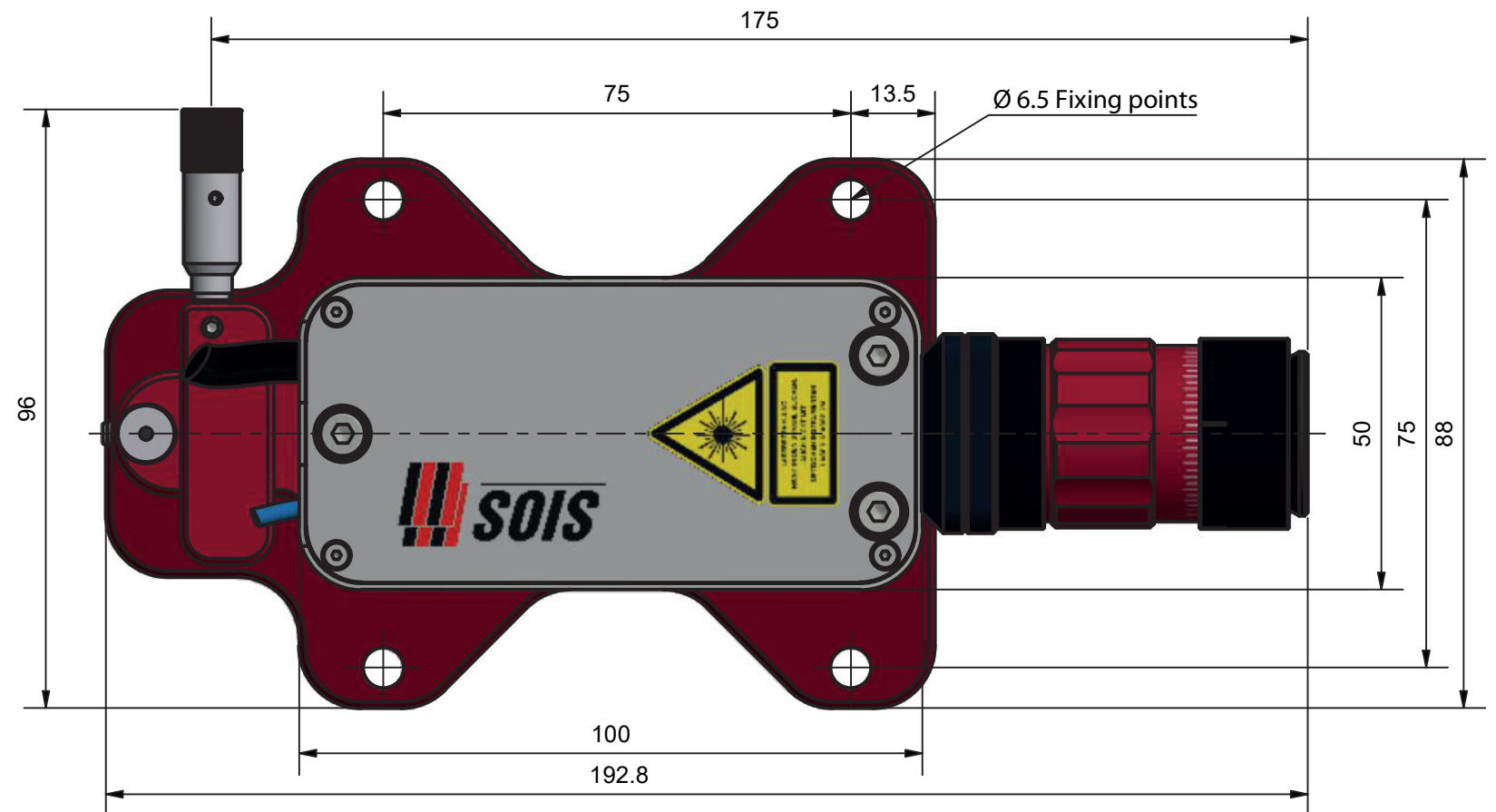
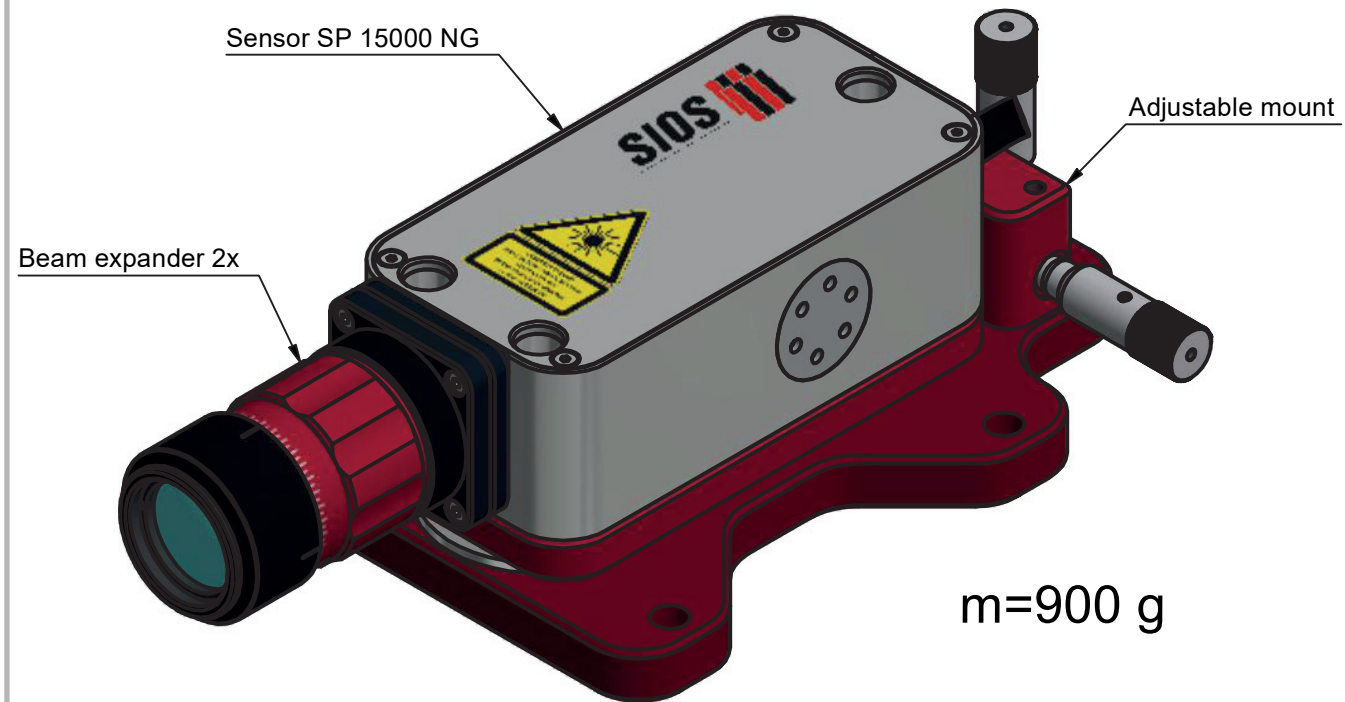
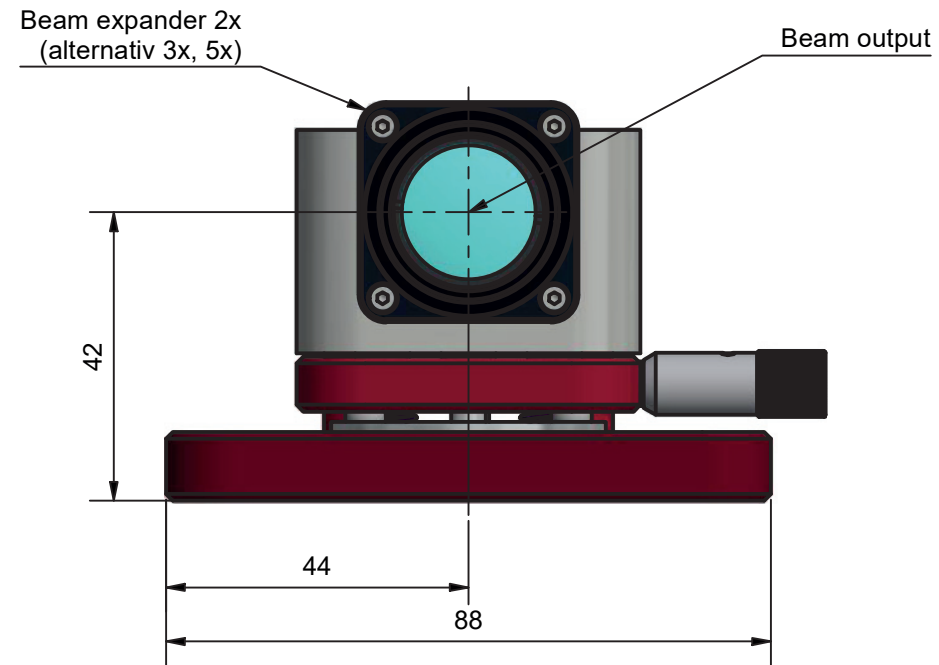
We will be happy to personally assist you in finding solutions for your measuring tasks.

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SP 15000 NG (A035927) with adjustable mount



all dimensions in mm

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