



SP 5000 DI

Product information

Extremely stable laser interferometer for high-precision length
or angle measurements

Laser interferometer measurement system

SP 5000 DI

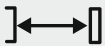
Our ultra-stable differential laser interferometer SP 5000 DI is characterised by its unique thermal stability and can be used for long-term measurements in research and development, such as for material testing.

Thanks to its design, with an external reference beam, the measurement system can be placed at a longer distance from the measurement location without significantly affecting the resolution or stability of the measurement. The length resolution of the interferometer is 5 μm and this can be achieved even under normal laboratory conditions thanks to the differential principle of the measurement system.

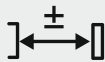


The measurement range for length measurement is several meters if tilt-invariant reflectors are used for the measurements. The system has a modular design and can therefore be adapted to specific measurement tasks.

Adjustments can be made simply and with long-term stability. The construction of multi-axis systems on the basis of the SP 5000 DI interferometer also allows multi-coordinate measurements.



2 m with plane-mirror
5 m with reflector



0.1 ppm



5 μm

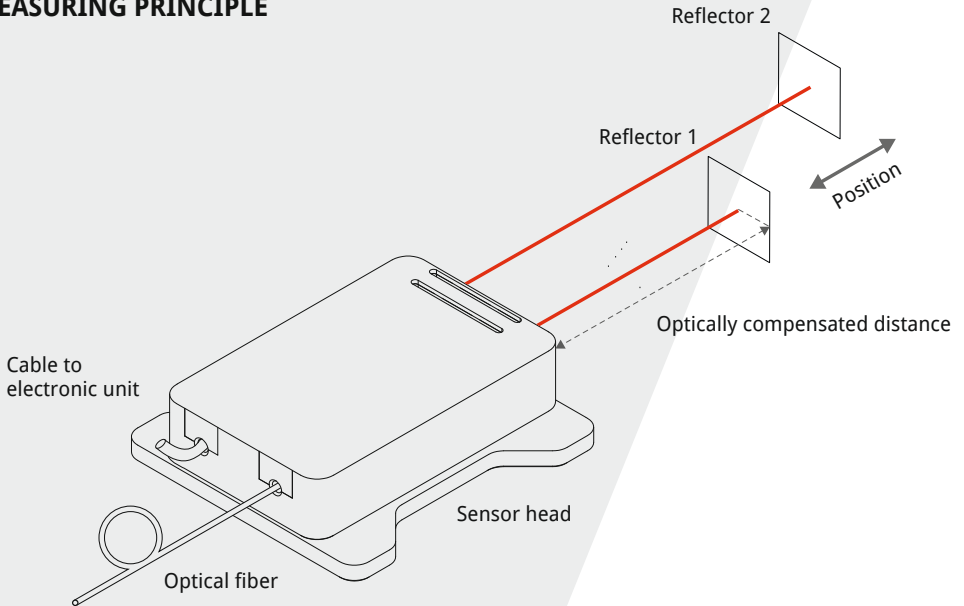


± 1.5 arcmin
with plane-mirror
 $\pm 5^\circ$ with reflector



0.001 arcsec

MEASURING PRINCIPLE



For customer-specific versions or integration in special measurement equipment, please contact us.

Further possible applications:

- The differential laser interferometer is available as an OEM version for installation as an encoder in machine axes. The SP 5000 DI is also available as a vacuum-optimised version for taking measurements in a vacuum.
- The standard beam distance is 21 mm. We can provide other beam distances on enquiry.

Ideal for

- Long-term measurements
- Development
- Science/research
- OEM applications
- Exacting stability requirements

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.**

SIOS Meßtechnik GmbH
Am Vogelherd 46
98693 Ilmenau / Deutschland

contact@sios.de
www.sios-de.com/products/length-measurement/differential-interferometer

www.sios.de
www.laserinterferometer.com