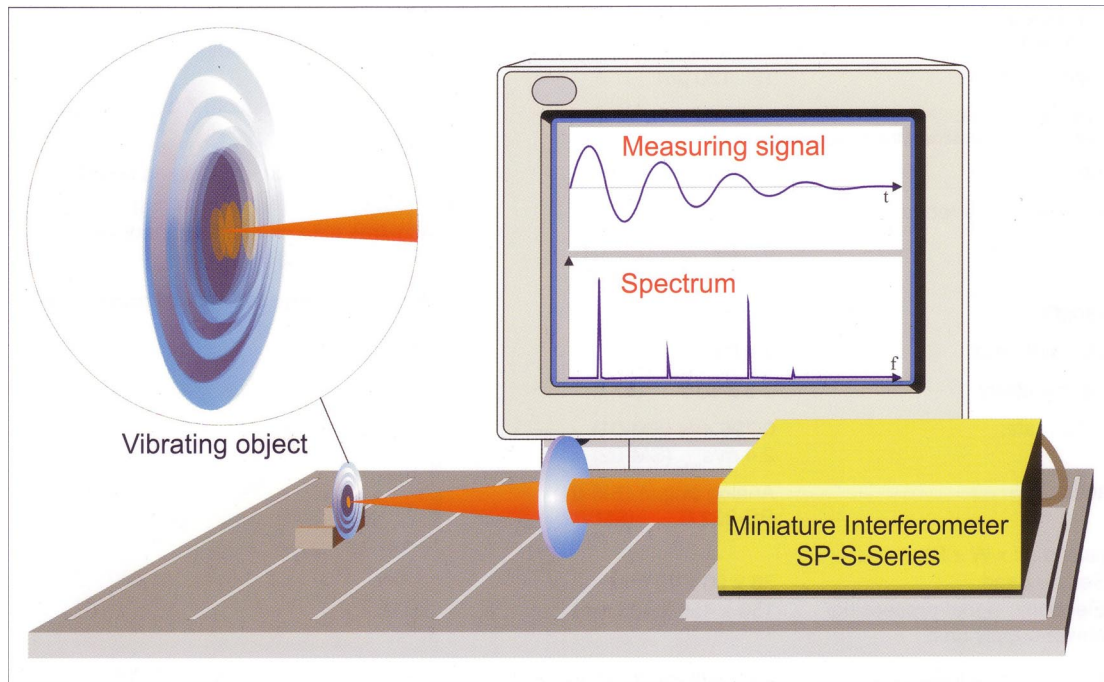


## **SP-S series miniature Interferometer for vibration analysis**



The SP-S series miniature interferometers for vibration analysis are ideal instruments for accurate, non-contact, measurement of temporal changes in the positions of objects or surfaces allowing the detection of mechanical vibrations at frequencies ranging from 0 to 450kHz.

The instruments have been designed around the industry-proven concept used in the SP-series miniature plane mirror interferometers. However, the sensor heads differ in that they are equipped with an auxiliary field lens to provide superior response to scattered light.

The complete system consists of a modularly designed electronics unit incorporating a laser, a compact sensor head and various interfaces.

The fibre optic coupled interferometer converts motion along the optical axis into interference fringes that are transmitted to fast, high resolution, demodulation electronics for processing. Operation and display utilises a PC running specialised data analysis software.

### **Applications:**

- **Making non-contact vibration measurements on surfaces of arbitrary roughness**
- **Determining the vibration modes of plates and shells**
- **Determining the resonant frequencies of microscopic objects**
- **Making multi-coordinate measurements employing several systems**
- **Performing high-precision length measurements**

