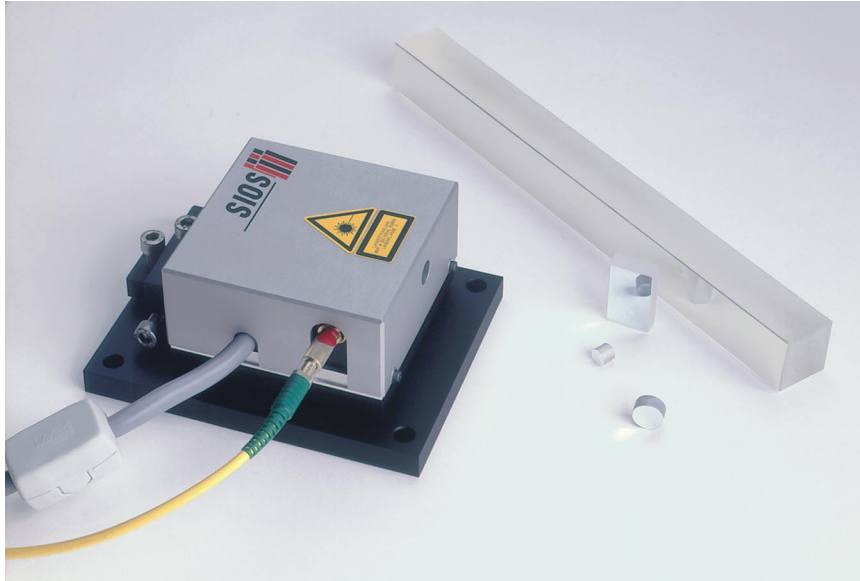


## **SP-series Miniature Plane-mirror interferometers**



The SP series systems are precision length measurement instruments designed for incorporation into customer-supplied equipment, and are readily adapted to a wide variety of experimental set-ups and tasks. The miniaturised sensor head allows their employment as permanently installed metrology systems.

A planar mirror or other optical quality reflective surface may be employed as a retroreflector and may be misaligned by as much as several minutes of arc with respect to the laser beam without adversely affecting the operation of the system. The beam from the laser light source is transmitted to the sensor head by a fibre optic cable.

The miniature interferometer converts the motion of the planar mirror along the beam axis into optical-interference signals that are transmitted to the optoelectronic signal processing/power supply unit for processing and output as length.

Instrument operation and display of the measurement results may be via either a separate keypad/display unit or a PC running an optional software package.

### **Applications:**

- Precision laser-interferometric length measurement on translation stages, microscope stages, positioning stages, metrological equipment or machine tools.
- Single/dual/multi-axis co-ordinate measurements.
- Dual-co-ordinate measurements in a single plane.
- Calibrating length-measurement instrumentation.
- Vibration measurements.
- Angular measurements.
- Simultaneous length and angular measurements, eg vacuum chambers.
- Non-contact surface profiling.

