



3D laser scanning vibrometer

Polytec PSV-400-3D Scanning Vibrometer

Scanning vibrometer capable of precisely acquiring and analysing vibrations in three dimensions.

Features and benefits

- Easy and intuitive to operate
- Non-contact – measure the vibration of the test structure without loading
- Entire measurement task in 3D (can measure in-plane vibration)
- Versatile – tailored solutions for structural dynamics or ultrasonics
- Class 2 ‘eye-safe’ laser means that it does not require a working cell
- PSV software provides open data interfaces and control interfaces for automation and for tailored solutions in science and development

Some applications

- Ultrasonics applications: characterisation and optimisation of ultrasonic transducers and transducer arrays; study wave propagation and interaction with physical features.
- Materials research and engineering: measurement of energy harvesting transducers and smart structures
- Electronics: dynamic testing and vibration analysis of read-write heads in hard disks
- Aerospace: examination of material fatigue and defects
- Automotive development: acoustic optimisation of, for example, brakes, interior and exterior
- Medical: study of structural dynamic of powder handling tools, such as inhalers

Technical specification

- Three OFV-5000 vibrometer controllers, each with digital velocity decoders
- Three PSV-I-400 sensor heads, each comprising OFV-505 vibrometer sensor and colour video camera with 72x zoom
- Bespoke PSV-W-402 data management system
- Working distance 35–5000mm
- High spatial resolution over mm² to m² areas with a 50° x 40° scan angle

