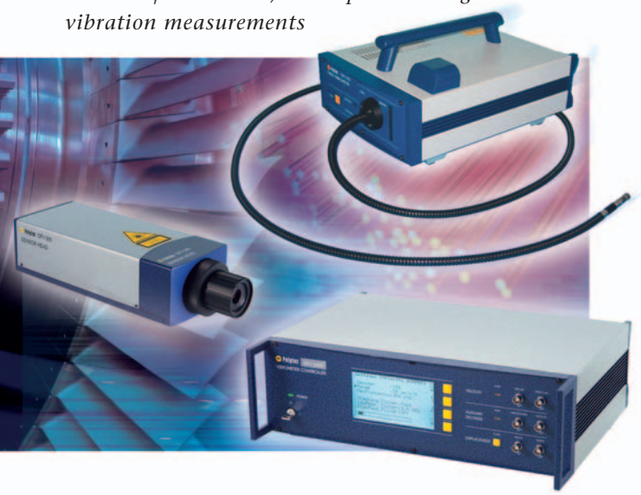
OFV Modular Laser Vibrometer

Universal system, designed as a flexible, upgradeable solution for research, development and general vibration measurements



- This modular system makes non-contact vibration analysis very simple, flexible and precise, regardless of whether the sample is large or small, delicate or difficult to access
- The system comprises
  - an OFV-5000 Controller
  - decoder modules
  - a choice of sensor heads (OFV-505/503 standard single point, OFV-551/552 fiber single point or differential sensors)
- Various analog and/or digital decoder options seamlessly cover:
  - the entire velocity range up to ± 20 m/s
  - displacements from the picometer to the meter range
  - frequencies from DC to 20 MHz
- Designed-in flexibility – the system can be extended to a full field scanning vibrometer, microscope scanning vibrometer or micro system analyzer

m

PSV-400 Scanning Vibrometer

A full-field vibration measurement and imaging system that is fast and easy to use

- Simplifies complex noise and vibration characterization for R&D, commercial and industrial applications
- Complete PSV Software Package provides detailed vibration data analysis including graphing, animation of 2-D and 3-D color maps, FRFs, and data export to Modal Analysis and FEA packages
- Powerful accessories and options. For example, direct geometry data can be determined from the test piece via the optional Geometry Scan Unit

mm

PSV-400-3D Scanning Vibrometer

The ideal measurement system for gathering non-contact 3-dimensional vibration data from both simple and complex structures

- Simultaneous, high spatial resolution measurement using three independent PSV-400 scan heads
- Powerful and intuitive graphical display of measurement results, including 3-D animation deflection/mode shapes
- Clearly displayed separation of Out-of-Plane and In-Plane vector components
- Data interface to Modal Analysis and FEA Software

µm

MSV-400
Microscope Scanning Vibrometer

This system delivers full-field characterization of Out-of-Plane motion for MEMS and other microstructures using standard microscope optics

- Frequencies up to 20 MHz
- Velocities up to 10 m/s
- Picometer displacement resolution

nm

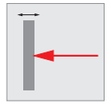
MSA-400
Micro System Analyzer

Unified technology simplifies precise measurements, quick analysis and complex characterization of 3-D dynamics of MEMS, MOEMS and other microstructures

- Combination of Laser-Doppler Vibrometry, Stroboscopic Video Microscopy and high performance imaging
- Integrated microscope optics are optimized to guarantee highest lateral resolution and image quality
- Increases productivity and lowers costs through fast measurement, analysis and visualization
- Simple and intuitive operation, ready to make measurements in a matter of minutes

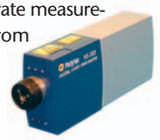
- Easily mounts to MEMS probe stations
- Dual beam option for differential measurements
- Rapid identification and visualization of Out-of-Plane and In-Plane resonances

Portable and Industrial Vibrometers and Velocimeters



IVS Industrial Vibration Sensors

- Proven performance for production line quality control
- Robust single-box design with tamper-proof operation
- Available with integral digital signal processing for accurate measurements from difficult surfaces



PDV-100 Portable Digital Vibrometers

- The first truly portable digital vibrometer for condition monitoring and other mobile measurement tasks

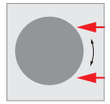
CLV Compact Laser Vibrometers

- Ideal for general production test/R&D work
- Compact lightweight sensor head design with remote controller and near DC to 350 kHz frequency response

LSV Laser Surface Velocimeters

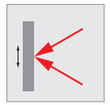
- Precsion, non-contact measurement of speed, direction and length of moving surfaces
- Robust housing designed for accurate work in the harshest industrial environments
- Proven performance on coils, strips, tubes, paper and hot steel

Special Vibrometers



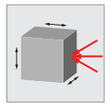
Rotational Vibrometers

- For torsional vibration and rotational speed variation measurement, e.g. automotive engine and drivetrain torque, motors and pumps, etc.
- Provides angular velocity, displacement and rpm outputs



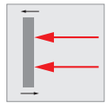
In-Plane Vibrometers

- For transverse (in-plane) vibration measurement
- Provides lateral velocity (DC) and velocity



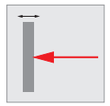
3D-LV Tri-Axial Vibrometers

- Simultaneous non-contact measurement of vibration along 3 axes
- Separate analog velocity outputs: v_x, v_y and v_z



HSV High-Speed Vibrometers

- For high speed engine valve dynamics, explosion, shock impact and other high speed vibration test applications
- Single and differential velocities up to ± 30 m/s



VDD Digital Vibrometers

- For applications where the highest accuracy and resolution are required, e.g. transducer calibration, micro device measurement (1 pm displacement measured in a 2 MHz bandwidth)
- Can be certified as a primary calibration standard by the German National Standards Lab (PTB)

Laser Doppler Vibrometry

Polytec manufactures a range of laser vibrometers that have become the accepted gold standard for non-contact vibration measurement.

No matter whether the application is for 100 % Q.A. inspection of motors on a production line, optimizing an ultrasonic cutting tool, confirming the characteristics of a MEMS micro-resonator or identifying torsional modes in a vehicle's drivetrain, there is a Polytec system that can provide the measurement solution.

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Laser Vibrometers

Solutions for every Vibration Measurement Need

non-contact, remote, rapid and accurate vibration measurement