



LASER-FIBRE OPTIC VIBROMETER

Ideas on utilisation

The subject of the offer is the technology of construction and principles of operation of the laser-fibre optic vibrometer, enabling simultaneous analysis of vibrations of four independent points of the vibrating object with high accuracy of measurement (at the level of nanometers). The offered solution can be used for measurements in industrial and laboratory diagnostics as well as acoustics.

The essence of the solution is the serial connection of an insulator, an acousto-optic Bragg modulator and an optical amplifier between the coupler and the transmitting collimator. At the same time, the coupler is connected with optical fibres through a compensator, a polarisation controller, an output coupler and a photo decoder. A signal from the receiving collimator is supplied to the photo decoder by optical fibres.

Potential adopters of technology

Not determined

Advantages of technology

The main benefits of the solution result from the specificity of its construction:

- Possibility of simultaneous measurement of up to four independent measurement points of a vibrating object (multi-channel, simultaneous work)
- Autofocus of a beam
- Relatively small head allowing its positioning and measurements in hard-to-reach places (e.g. device interior)
- The wavelength of the analysing radiation safe for the observer's eye
- No sparking
- Relatively low production cost.

Market and context of technology

The solution offered can be used for measurements in industrial and laboratory diagnostics as well as in acoustics.

Preconditions in adopting enterprises

Not expensive investment.