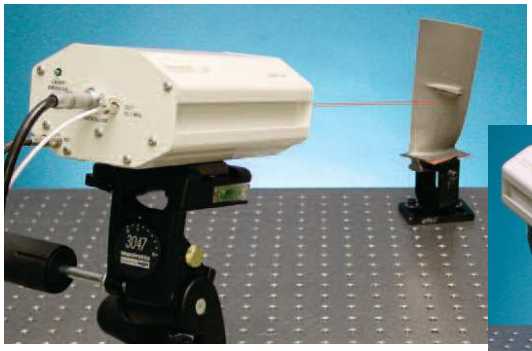
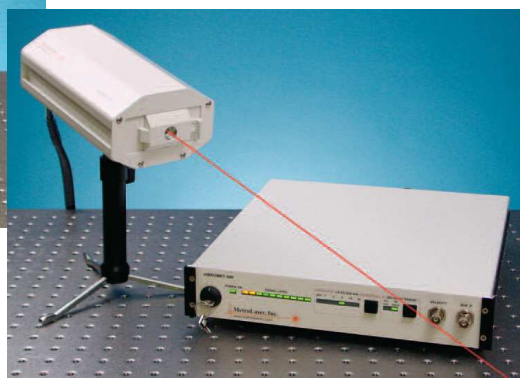
MAUL - THEET
Vibration & Test Solutions

# Single Point Laser Doppler Vibrometer





- *Analogue velocity output*
- *Velocity range 5 µm/s to 1 m/s*
- *Displacement range 0.1 nm to 10mm*
- *Working distance 10 mm to 5 m*
- *40 KHz Bandwidth*
- *Low Pass Filters 1,2,5,10,20 kHz*
- *Portable*
- *No focusing collimated Laser*
- *Large dynamic range*
- *Robust field tested design*

## Overview

The new VibroMet™ 500V Laser Doppler Vibrometer has a red laser diode for aiming the infrared laser diode measuring beam. This system is a compact, competitively priced, and easy-to-use precision instrument for non-destructive testing and non-contact vibration measurement of any surface. It is optimized for measuring distances from one 10 mm to 5 m, so there is no need for adjustments, lens accessories, or object treatment, thus ensuring the highest level of measurement accuracy.

## Description

The VibroMet 500V is based on a patented electro-optical configuration developed by MetroLaser. The system consists of a remote laser sensor head and an electronic controller.

## Laser Sensor Head

The remote laser sensor head includes an infrared laser diode for measurement, a red laser diode for aiming, an acousto-optic modulator and a high sensitivity photo-detector.

## Electronics Controller

The electronic controller has both, a demodulated velocity output and a 10.7 MHz frequency modulated signal output. The front of the controller has a signal level indicator, two selectable velocity ranges and an array of low pass filter options.

## Benefits

⇒ Non-contact measurements without mass loading
⇒ High temperature measurements
⇒ Vibration measurement on rotating parts
⇒ Easy-to-use Point & Measure Operation
⇒ Ultra high sensitivity

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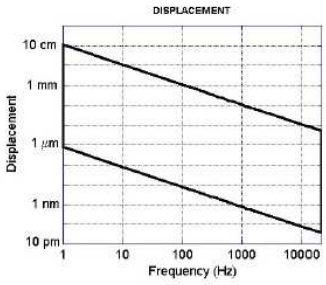
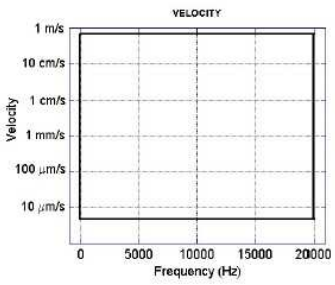
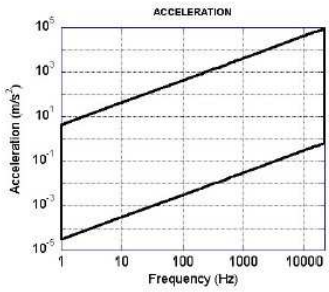
## Specifications

| | |
|---|---|
| Velocity Range | 5 µm/s to 1m/s |
| Displacement Range | 0.1 nm to 10 mm |
| Vibration Frequency Range | 0,1Hz to > 40kHz |
| Working Distance | 1 cm to 5 m |
| Optics | Collimated,<br>No focusing needed |
| Surface Reflectivity | Realistic Surfaces |
| Signal Output | Analogue demodulated and 10.7 MHz FM |
| Output Voltage (max) | +/-10 Volts |
| Low Pass Filters | 1, 2, 5, 10, 20 kHz |
| Laser | 780 nm, <15mW, class IIIb<br>650 nm, <1mW, class II |
| Dimensions Laser Head | 24 x 11.4 x 7.6 cm |
| Dimensions Controller | 30 x 22 x 6 cm |
| Weight Laser Head | 1,4 kg |
| Weight Controller | 3,9 kg |
| Temperature Range | 3 to 45°C |
| Power Requirement | 100 to 230 V~ at 50/60 Hz |




## Information:

For more information or a demonstration please do not hesitate to contact us.

*Vibromet*™ a registered brand of MetroLaser Inc./USA.

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