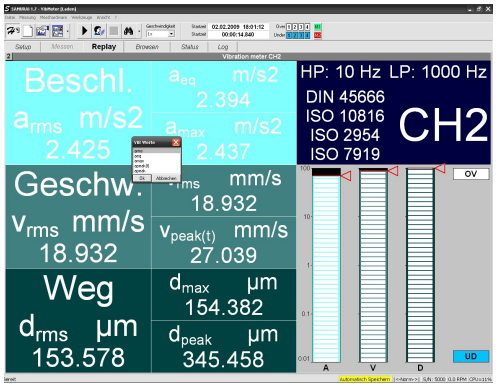
# SAMURAI option: VIBRATION-METER




## Field of Application:

In the vibrational analysis of machines and equipment, typically accelerometers are applied.
However, as well as the effective vibrational acceleration, the vibrational velocity and displacement are often also of interest. The latter two values can be calculated via single and double integration, respectively, of an accelerometer signal.

### Description:

This option calculates vibrational velocity and displacement values via single and double integration of a signal from an accelerometer. Momentary and peak values are continuously calculated, as are the maximal, peak and effective values since the beginning of the measurement. In addition, high- and low-pass filters are available with selectable cut-off frequencies.

This option satisfies the requirements for a vibration severity meter according to the ISO 2954, ISO 7919 and ISO 10816 standards.

### Technical Data

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| Standards implemented | ISO 2954, ISO 7919, ISO 10816 |
| Sensors | Accelerometers |
| Measurement range | 2 Hz to 20 kHz |
| Features | • Selectable digital high-pass filter: 2, 5, 10, 20, 55, 100, 200 and 500 Hz<br>• Selectable digital low-pass filter: 0.1, 0.2, 0.5, 1, 2, 5, 10 and 20kHz<br>• Display in selectable standard units, e.g. $m/s^2$, g, mm/s, µm<br>• Numerical display of RMS, PEAK, EQ and MAX for the acceleration, velocity and displacement in the vibration meter window; graphical display in time history graphs<br>• Export to Excel, TXT & UFF format files and directly to the NWWin software |

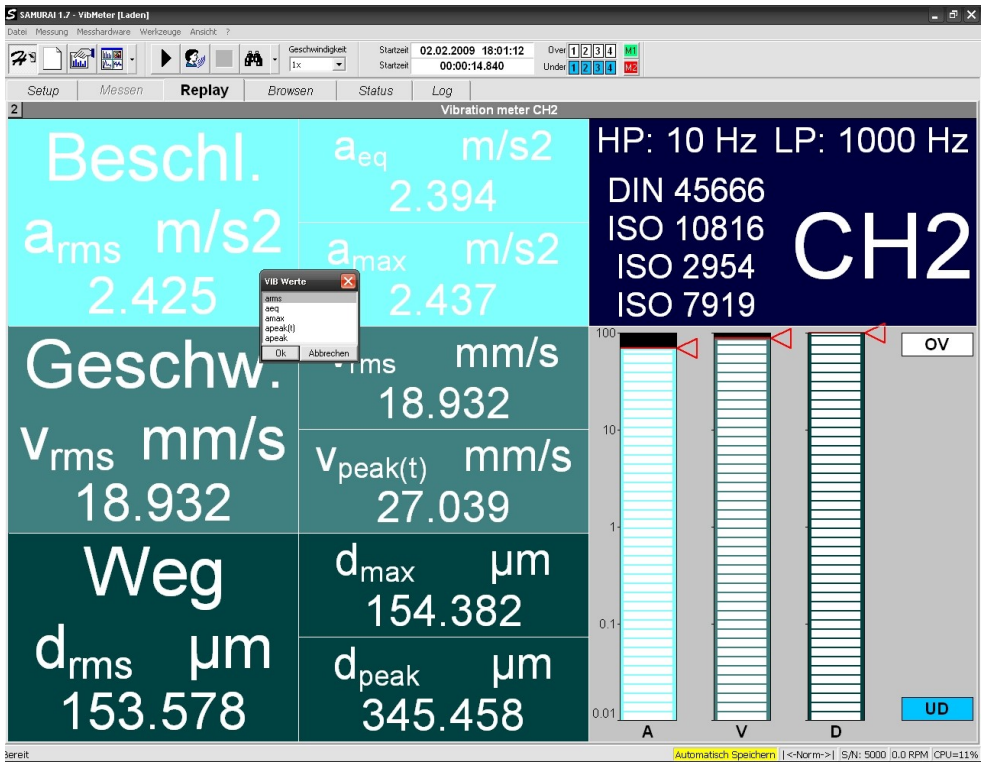


*Figure 1: Vibrational acceleration, velocity and displacement*

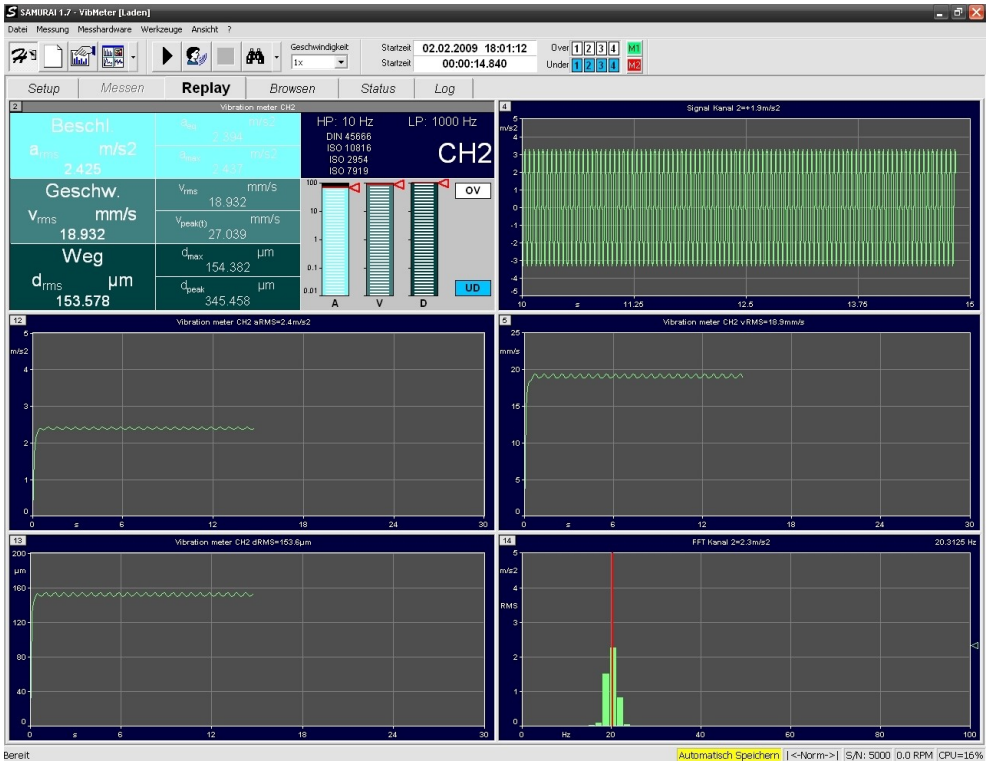


*Figure 2: Vibration Meter window with time history graphs*