

Easy-Viber

Vibration
Analyser

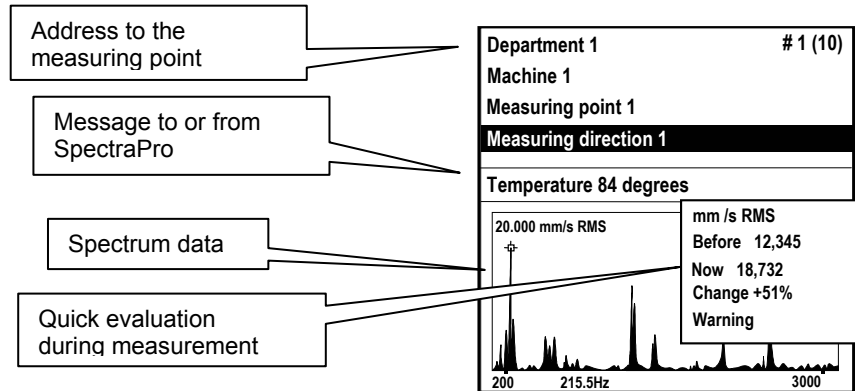


Vibration analyser with:

- Built in program in several languages
- Route measurements downloaded from PC-program
- Balancing with 2 transducers simultaneously
- Additional Frequency Analysis with transfer to PC
- Envelope
- Time signal
- Coast-Up and Coast-Down
- Vibration / Phase measurement for vibration animation
- Total Level
- Bearing Condition
- Output to printer and computer

Route and Analysis

◆ Route



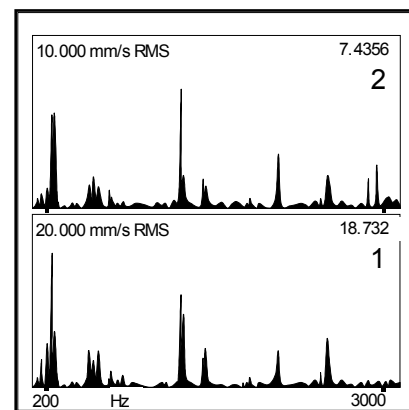
◆ Frequency analysis

Easy Viber makes a frequency analysis with two transducers simultaneously between the frequency range 2 to 3.200Hz and with a resolution of 1Hz which corresponds to 3.200 lines.

When analysing with only one transducer the resolution is 0,5Hz which corresponds to 6.400 lines.

As a help when analysing a spectra Easy Viber has simple, harmonic and side band cursors.

You can easily zoom in the frequency range with the numeric keys 1 to 5. With key 5 the spectra is displayed with full resolution.

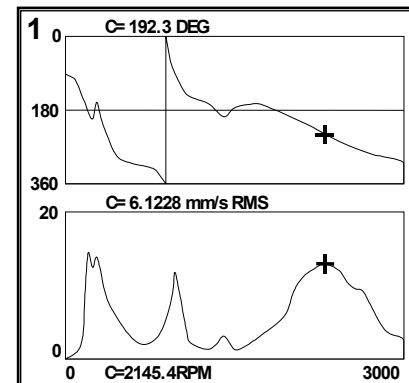


◆ Coast down

With Easy Viber you can easily make a coast down to investigate the resonance's in a machine.

You speed up the machine to maximum RPM, start the measurement and turn off the machine.

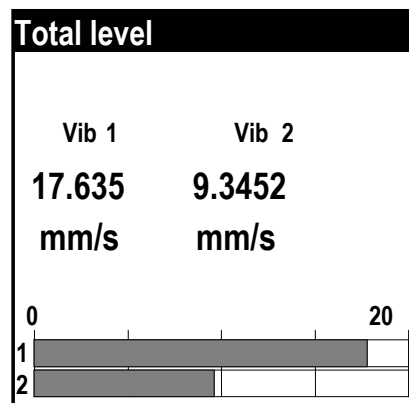
Easy Viber automatically distributes the RPM range in 167 parts and measures the level and phase at every division of the RPM.



◆ Total level and Bearing condition

Easy Viber can measure total level and bearing condition like a voltmeter. The level is displayed both as a numeric value and as a scale.

This makes it easy to investigate how the machines is vibrating in different directions and in different measuring points and also how the machine reacts when a bearing is lubricated or when the stretching of a transmission-belt is increased or decreased.



Balancing functions

- Calculation of trial weight
- Weight distribution
- Balance quality
- Response matrix
- View response matrix
- Bias vibration

Balancing can be made between 30 to 192.000 rpm corresponding to the frequency range 0,5 to 3.200 Hz.

Easy Viber measures with two transducers simultaneously which makes dynamic balancing very simple.

Easy Viber both starts and finishes measurements with trial- and balancing weights automatically. A measurement starts automatically when the selected balancing RPM has been obtained and finishes automatically when the measurements are stable.

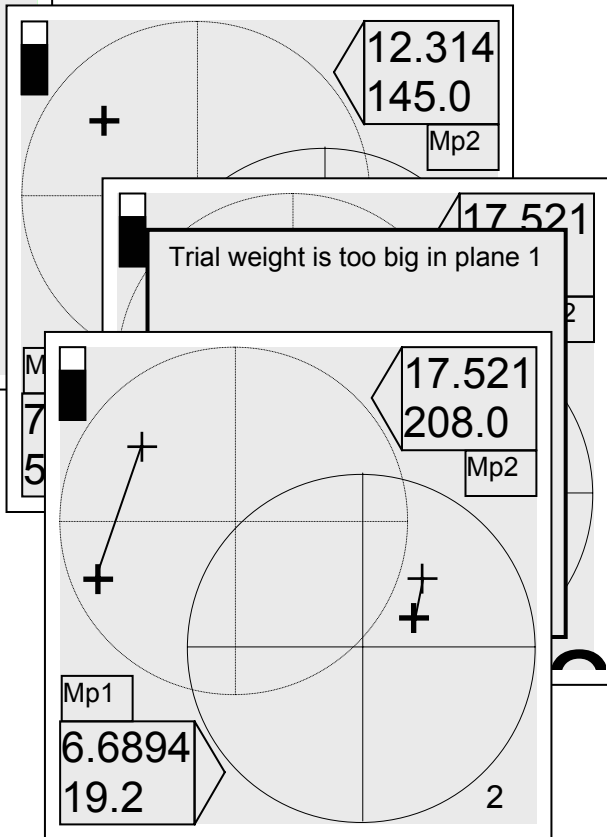
Easy Viber compares the balancing result according to ISO Standard. This makes it possible to balance any machine, even on site, according to ISO Standard without the need for a balancing machine.

Easy Viber can distribute the balancing weight to fixed positions e.g. to bolts in a coupling or blades in a fan.

With Easy Viber you can at any time choose a new radius for the balancing weight and the instrument calculates a new balancing weight to the chosen radius.

Easy Viber controls how the balancing progresses and gives an alarm if the operator makes a common fault like for example leaves the trial weight in the machine when he has told the instrument to remove it.

With Easy Viber balancing has become really easy.



Calculation of trial weight

Input of response matrix

Balance quality

Saved balancings

LATEST BALANCING

FAN 7422

FAN H20

97 07 21 14 02

CENTRIFUG PM7 STORA

Technical Specification

◆ **Transducer:**

Easy Viber is prepared for the most common types of transducers like Accelerometers, Velocity Transducers and Proximity Probes. Both the transducer inputs can supply 4mA to accelerometers with built in constant current amplifiers and also supply 24VDC/25mA to inductive proximity probes. The nonlinearity of velocity transducers are compensated in the software.

Easy Viber can be pre-programmed for up to 10 different types of transducers. You choose a unit and enter the sensitivity of the transducer in mV/unit. The maximum input without external resistors is 5.0V. Each channel can be programmed independently.

A separate input for RPM transducers has can supply 24V/25mA to optical or inductive RPM transducers. The input accepts both PNP and NPN transducers and also Namur transducer for 8.8V. This input can also be used together with magnetic RPM transducers. In this case the instrument supplies a current of 2.4mA through the transducer coil.

With special self-adjusting electronics Easy Viber accepts all RPM pulses between 0.5 and 24Volt, even negative, as long as one pulse per turn is dominating the RPM signal.

◆ **Display units:**

Each channel can independently be programmed to show vibrations in the 10 most common vibration units and with rms, peak or peak-peak. Frequency can be shown in rpm or Hz.

◆ **Balancing:**

Digital tracking filter which is controlled by RPM pulse. A vibration noise which has the same level as the unbalance, influences the measurement less than 1%. With averaging which normally is used in balancing, this influence decreases even more. Balancing can be made between the frequency range 0,5 to 3.200Hz which corresponds to the RPM range 30 to 192.000.

◆ **Route:**

Both the frequency range and the resolution are determined in the PC-program SpectraPro.

◆ **Frequency analysis:**

Easy Viber makes a frequency analysis between the frequency range 2 to 3.200Hz.

When measuring with 2 transducers simultaneously the resolution is 1Hz or 3.200 lines.

When measuring with one transducer the resolution is 0,5Hz or 6.400 lines.

◆ **Coast down:**

Digital tracking filter which is controlled by RPM pulse. A vibration noise which has the same level as the unbalance, influence the measurement less than 3% at 1000Hz. The accuracy increases as the measured frequency decreases. The run-out can be made between the frequency range 0,5 to 3.200Hz which corresponds the RPM range 30 to 192.000.

The resolution is always 1/167 part of the selected maximum RPM.

◆ **Total level:**

Total level is measured between 10 to 3.200Hz.

The accuracy at the calibration frequency 200Hz is better than 3%.

◆ **Bearing Condition:**

The bearing condition value is an average of acceleration between 3.200 to 20.000Hz and is always displayed in the unit "g".

• **Storage capacity:**

64MB

• **Dimensions in mm:**

The instrument dimensions 175 x 185 x 45 mm, weight 1.2 kg including alkaline batteries.

• **A complete instrument set contains:**

1 pc Instrument incl. batteries 2 pc Vibration Transducers with magnet support

1 pc Optical RPM transducer 2 pc Extension cable 5m for vibration transducers

1 pc Reflective tape 1m 1 pc Manual

1 pc Extension cable 5m for the optical RPM transducer

1 pc Magnet support for the optical RPM transducer

1 pc Storing case in ABS plastic with space for documents, long cables or printer

VMI AB reserves the right to make changes in this technical specification.

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