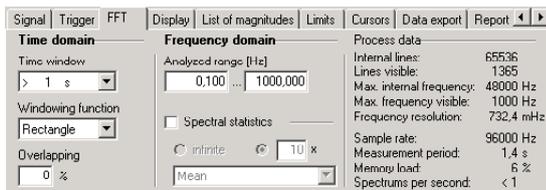


InnoAnalyzer® 1.9

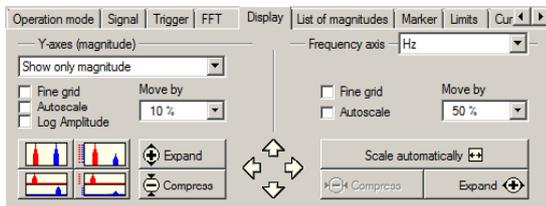
FFT Vibration Analyzer



Simultaneous analysis of up to 4 signals, phase display switchable



Manual mode for purposeful FFT configuration

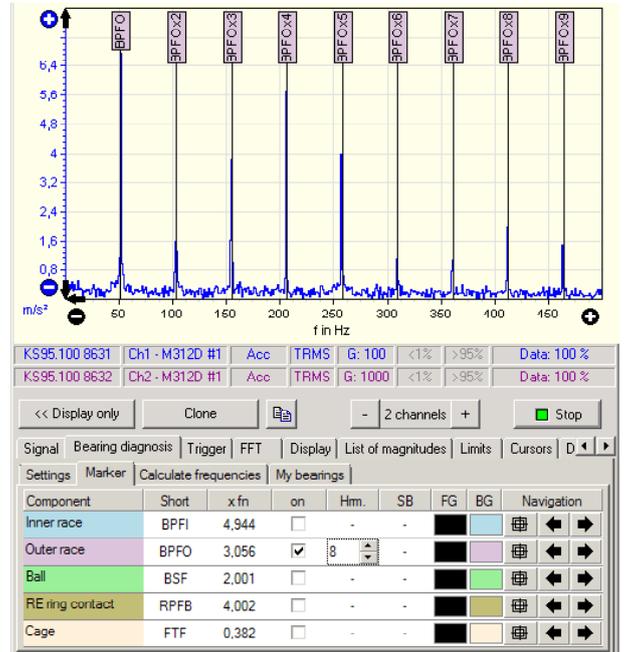


Arrange, zoom, compress graphs acc. to your demands

Application

For the frequency analysis of vibrations, the InnoAnalyzers are applied. Rotating parts in drives, gears, pumps, fans and many other technical products cause vibrations. Often, different frequency components generate a vibration mix.

InnoAnalyzers decompose this mix into its different frequency components by fast Fourier-transformation. So you can detect the parts which are primarily responsible for the vibrations. As a result, mechanical malfunctions are precisely and quickly tracked down in development, quality control or service. The success of measures to reduce vibrations is proven measurably.



Special modes, e.g. bearing diagnosis by envelope analysis

Properties

The InnoAnalyzers are universal vibration analyzers for vibration acceleration respectively also vibration velocity and displacement (Pro version).

The instruments cover the whole field of frequency analysis from an automatic mode to special modes like PSD, bearing diagnosis by envelope analysis, acoustics measurements or determination of frequency response.

The high number of lines of more than 500 000 FFT lines allows a frequency resolution of up to 1 mHz. Switching the frequency axis from Hz to 1/min simplifies the allocation to rotating parts. In addition, frequencies can be displayed as multiple of rotation speed (order analysis).

Amplitudes are detected and listed up automatically, values are also displayed in the chart when required. Additionally, two differently colored cursors with value display support you during the analysis. The export of the graphs into other applications as graphic or as pairs of values in text format is easily possible.

Frequency analyses can be carried out continuously as well as - e.g. for bump tests - in response to a triggered time signal. In this case, the InnoAnalyzer is working together with the InnoScope.

During unattended operation, analyses can be saved periodically or limit dependent or be sent via e-mail.



Technical Data

	InnoAnalyzer Pro	InnoAnalyzer
Signal Processing		
Measurands	Alternating measurands: Vibration acceleration, velocity, displacement; force, pressure, sound pressure, voltage, user-defined measurands	
Integrated Measurands	Acceleration → Velocity and displacement	-
Units	m/s ² , mm/s ² , μm/s ² , nm/s ² , pm/s ² , g, mg, μg, km/s ² , kg, dB m/s, mm/s, μm/s, nm/s, pm/s, in/s, mil/s, μin/s, dB m, mm, μm, nm, pm, ft, in, mil, μin, dB kN, N, mN, μN, nN, lb, oz bar, mbar, MPa, kPa, hPa, Pa, mPa, μPa, nPa, psi V, mV, μV, nV, pV A, mA, μA, nA, pA	
Characteristics	Peak value, Peak-to-peak value, r.m.s. value, phase	
Measurands and Units X-Axis	Frequency (Hz) / Rotation speed (1/min) / Rotation speed order	
Frequency Range	Freely adjustable 0 .. 40 000 Hz **	
Frequency Resolution, Overlapping	< 1 mHz, 0 .. 99%	
Windowing	Rectangle, Bartlett, Blackman, Hamming, Hann, Flattop	
FFT Modes	Automatic, manual, bearing diagnosis, PSD, Frequency response function, Acoustics	Automatic, manual
Time Data Feeding	Continuous / triggered in time domain	
FFT Statistics	Mean, quadratic mean, maximum	
Statistics Time Frame	Infinite / adjustable number of spectra (up to 1000)	
Number of Lines	2 .. 524288	
Graphical Presentation		
Number of Graphs	1 .. 4 for magnitude and 1..4 for phase per window	
Refresh	1 .. 16 times per second *	
Interval Y-Axis	Magnitude: 0.1 .. 10000 (logarithmic as well) / Phase: 0..360°, -180° .. +180°	
Interval X-Axis	1 .. 40 000 Hz / 600 .. 2 400 000 min ⁻¹ **	
List of Magnitudes	1..20 magnitudes (search sensitivity adjustable), sorting acc. to magnitude or frequency	
Cursors	2 lines, freely adjustable by mouse or button, display of cursor values and difference	
Markers (Bearing diagnosis)	Inner race, outer race, kaefig, ball, WK ring contact, side bands, harmonics (integrated database of > 20000 bearings)	-
Marker Control	Adjustable frequency / Rotation speed signal	-
Limit Graph	Graphically free adjustable with 100 points	-
Status Indicators	Sensor, measuring channel, measurand, characteristic, gain, underload, overload, level	
Data Export		
Control	Manually time- or level-triggered	
Formats	Bitmap, PNG, Enhanced Meta File (EMF), text	
Destinations	Clipboard or file	
Event Annunciators		
E-Mail	Trigger initiates transfer of exported measurement data	
Miscellaneous		
Available in a Kit	VMSet-02;-03;-04;-05, VMSet-25	-
General Functions	Measurement data is held after switching off, module is cloneable	

* Centrally managed in the InnoMaster

** when working with InnoBeamer LX2: Upper frequency limit 3200 Hz = 192 000 min⁻¹

Changes without prior notice

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