

DigivibeMX M30

Vibration Analyzer and Balancing System

Datasheet

The most complete, reliable and productive **Dynamic Balancing and Vibration Analysis Device**



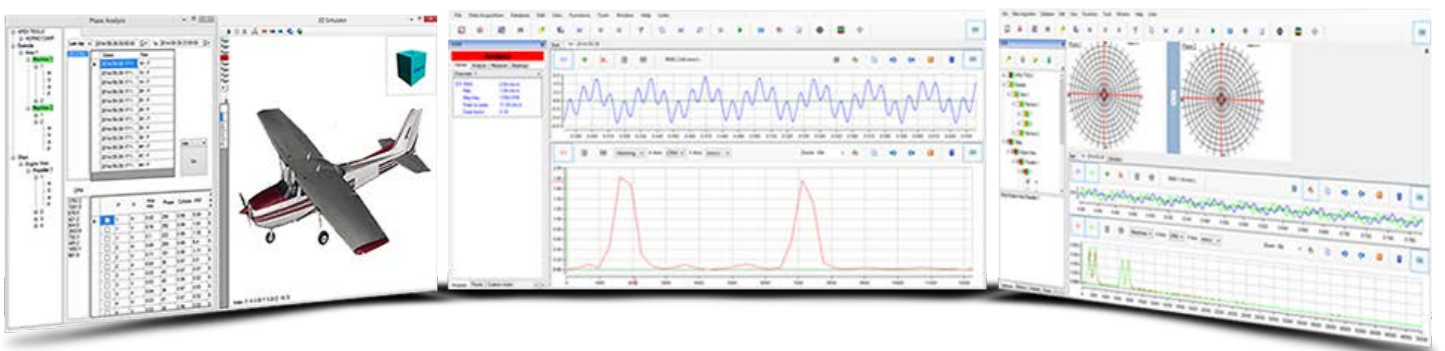
Only for illustrative purposes. Computer is not included, see page 6 for more details.

Overview

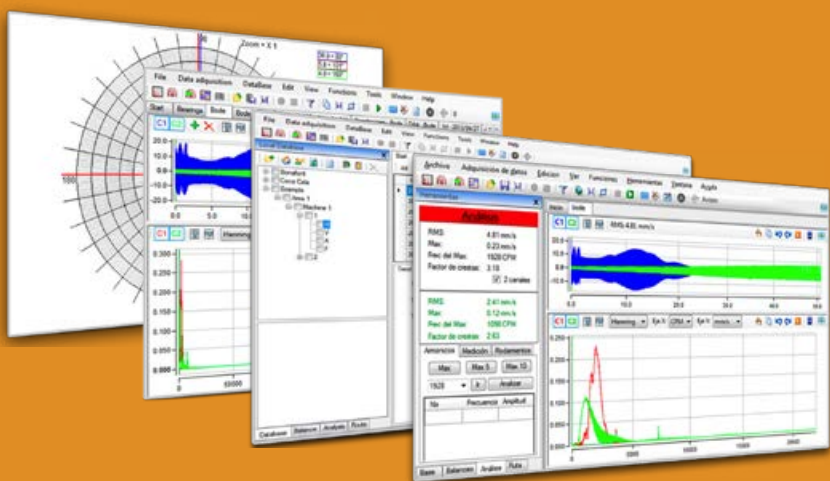
DigivibeMX M30 is the most complete, reliable and productive dynamic balancer, vibration analyzer and data collector that allows you to perform balancings on the field and on balancing machines, analyze complex vibrations and save all your data in the embedded database. Its use is very intuitive and simple to use, also includes advanced tools for more experienced users.



DigivibeMX M30 includes a database where you can store and manage all your machinery to keep a registry.



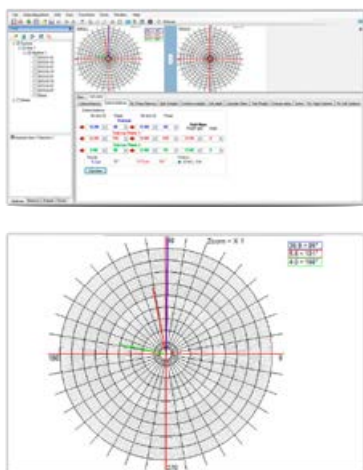
With a single click you can start balancing.



Advanced, but simple

With a single click you can easily make balancings and vibration analysis.

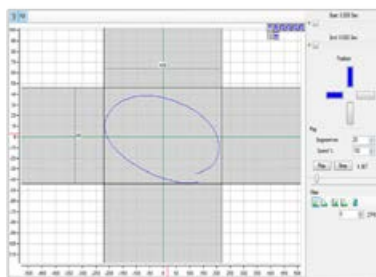
Dynamic Balancing Tools



- **Balancing in 2 runs***
- **Polar** graphics
- **Balancing** calculator for:
 - Single and two plane
 - Split and combine weights
 - Trial mass calculator
 - Serial balancing (without test weight)
 - Residual unbalance
 - Drill depth (remove mass)
 - Plate size

Dual Channel Functions

Dual channel analysis has huge advantages, not only because it saves time for the data collection, but also because it allows obtaining information that could not be acquired with a single channel analysis.

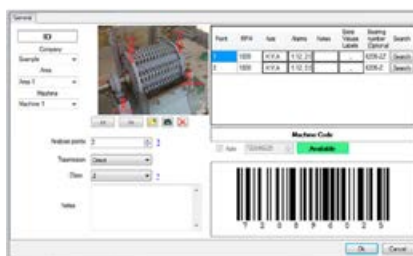


- **Orbit** analysis
- **Cross Power** Spectrum
- **Frequency Response** Function
- **Coherence** function

Bearings Database & Automatic Reports

DigivibeMX M30 has an expandable database with information about more than 20 000 bearings. Also, it's able to generate automatic reports on Microsoft Word format, this way it is easy to add necessary information or remove useless data.

Machinery Database

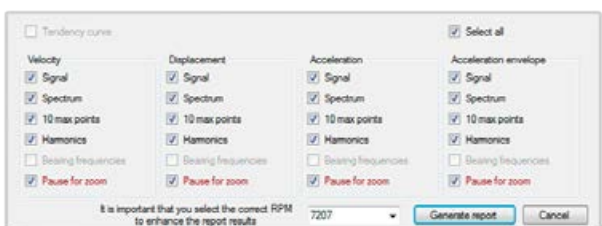


- Name, Area & Company
- Measurement Points
- Coupling joint
- ISO Class

Compatibility



- ASCII files
- UFF58 files
- ANL BAL files



*Only when balancing on soft bearing suspension

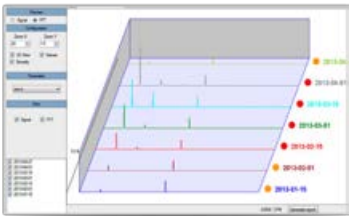


Take a shot.
Get the data.

DigivibeMX M30, can access quickly to your machine information, with a single shot.

Predictive Analysis Tools

CASCADE SPECTRA

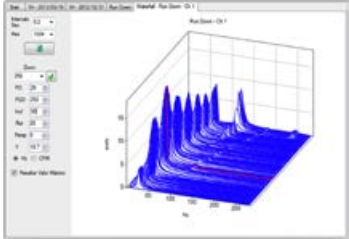


DigivibeMX M30 allows the user to perform predictive analysis of any machine located in the Machines Database.

- Machines database and routes
- + 20 000 bearings database with dimensions and working speed
- Interpretation and diagnostic tools
- Cascade spectra

FFT Spectra

RUN DOWN SPECTRUM

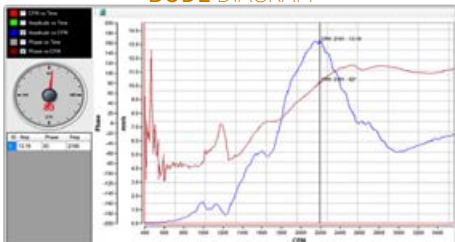


Most of spectral tools in DigivibeMX M30 are based on the FFT algorithm, capable of measuring low frequencies (1 Hz) up to 10 kHz. The accuracy of the spectrum varies according to the needs, reaching many million of resolution lines.

- Million points spectrum resolution
- Spectrogram
- 3D spectra

Advanced Analysis Functions

BODE DIAGRAM



The advanced vibration analysis allows the diagnose of complex failures, relation between points, vibration modes and structure analysis.

- Crest Factor
- BODE Diagram
- RPM vs Time
- Amplitude vs Time
- Bump Test



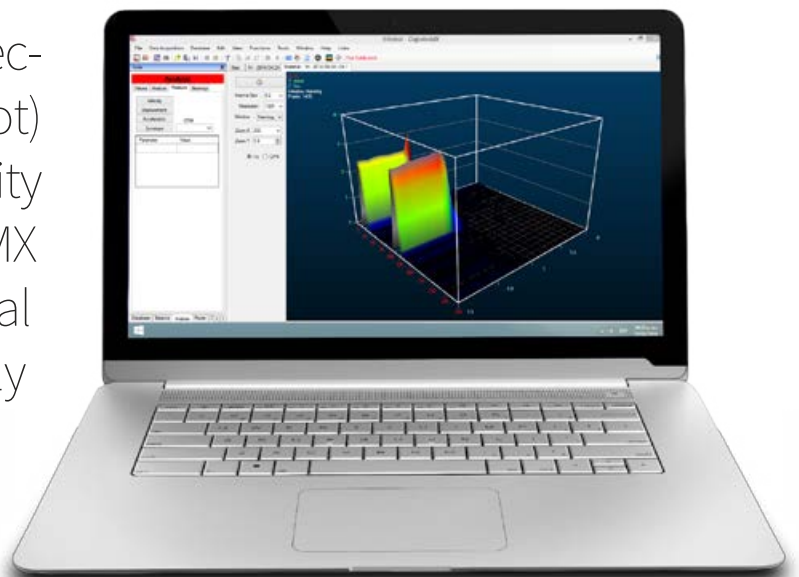
DigivibeMX M30 integrates the **ODS Simulations** in all its machinery databases.

ODS Analysis

ODS Analysis is now an easy task to do, no more complex drawing interfaces and complex calculations, **just create your 3D model** in your favorite 3D software and import it into the software in order to make a custom ODS analysis. All 3D simulations can be exported to AVI video format and animated GIF images compatible with any operating system.

Real 3D Waterfall

A waterfall is a **time-varying** spectral representation (forming a 3D plot) that shows how the spectral density of a signal varies in time. In DigivibeMX M30 you can now enjoy the new Real 3D waterfall tool which can be easily created and rotates when dragging the mouse over the graph like in common 3D software.



DigivibeMX M30 includes:

2-Channel interface



- 4-pin connectors (I, II, B) for 24V accelerometers
- 5-pin connector (Op) for Optical Sensor
- Selector button (Ch 1 / Ch 2)
- Cable with USB connector (15cm)
- Weight 200g
- Dimensions (mm): 60(d) x 90(w) x 30(h)

Accelerometer



- Max Impact Shock: 1000 g's peak
- Freq. response (+/- 3dB): 0.32 - 15000 Hz
- Freq. response (+/- 5%): 2 - 10000 Hz
- Sensitivity: 100 mV/g +/- 10%
- Transverse sensitivity: < 5%
- Power supply: 18-30 V / 3-8 mA
- Short-circuit protection
- Operation temp.: -10 - 50 °C
- Protection grade: IP 67, III
- Impact resistance: IEC 60028-27
- Integrated cable w/4-pin connector (2m/6ft)
- Weight 15g
- Stainless steel body and Magnetic base

Laser Optical Sensor



- Analogic output / Range: 1 - 5000 Hz
- Power and current supply: 5V , 20 - 30 mA.
- Voltage drop: <0.4 V
- Short circuit, Reverse Voltage and Over-Voltage (15V for 1min) protection
- Operation distance: up to 15 m
- Operating temp: -10 - 50 °C
- Storing temp: -40 - 85 °C
- Protection grade: IP 67, III
- Impact Resistance: IEC 60028-27
- Weight 60 g
- Nylamid body

Cables



Calibrator



Soft Case & Magnetic Base



Installation CD & User Manual



Software highlights

- Displacement: 0.5 um to 30 mm (0.02 to 1200 mils)
- Velocity: 0.002 to 3000 mm/s (0.0001 to 120 in/s)
- Acceleration: 0.0001 to 100 G's PP
- Lines of resolution: > 1 000 000
- FFT windows: Rectangular, Hanning, Hamming, Flaptop, Blackman, CosSum, Bartlett, Kaiser
- Measures: Peak, Peak to Peak, RMS

System requirements.

Minimum requirements for the computer or tablet* where **DigivibeMX M30** will be installed.



- > Intel® Celeron® (1.60GHz / 400MHz FSB) or higher
- > 1GB RAM DDR2 or higher
- > Windows Vista or higher (works on Windows 8.1*)
- > SVGA display or higher (touch enabled displays are supported)
- > 300 MB minimum free hard disk space
- > USB Port

*Windows RT devices are not supported.

Accessories

DigivibeMX M30 fits with all your machinery using our wide range of optional accessories to increase the performance.



4-Channel Interface



Interface for 4 simultaneous channels with a maximal sample rate of 44100 Hz.

Supports 4 mono-axis accelerometers or 1 tri-axis accelerometer and 1 mono-axis or 1 optical sensor. Mostly used for data collection in route analysis on tri-axis mode and also for dual, triple and quad channel analysis.

Weight: 220 g.

Dimensions:
129 x 84 x 19 mm.

Magnetic stand



Designed for the accelerometer. Includes Neodymium magnets for mounting on rounded and flat surfaces.

Tri-axis Accelerometer



Shielded Cables



A wide-range of shielded monoaxial cables with 4 or 5 Pin security connectors on both ends. Suitable for Accelerometers and Optical Sensors.

Weight Scales



200 g, 500 g and 1000 g

More accessories and spares visit our online store: www.erbessd-instruments.com/store



SERVICE & ASSISTANCE
+52 (55) 6280-7654
info@erbessd-instruments.com

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