

# DigivibeMX<sup>®</sup>

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Vibration Analyzer, Data Collector &  
Dynamic Balancer

The most complete, reliable and productive **Vibration Analyzer, Collector and Dynamic Balancer**



Only for illustrative purposes. Tablet Computer may be included for additional charge.

## Overview

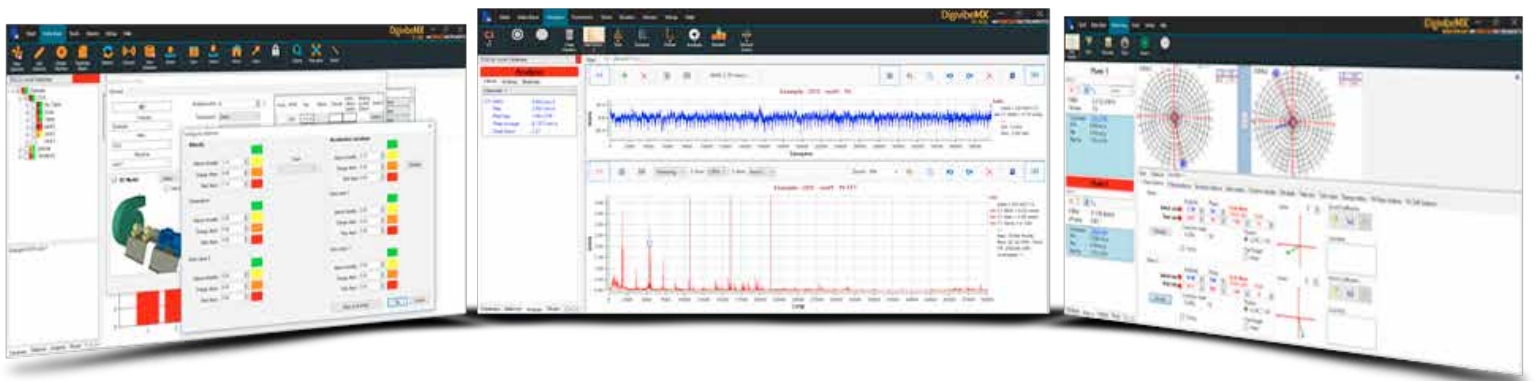
**DigivibeMX** platform is the most complete, reliable and productive vibration analyzer, collector & dynamic balancer. Digivibe provides simple and complex analysis on the spot, on-route and off-route. The Balancing functions can be used in situ and on balancing machines. The intuitive interface accomodates all levels of user - from novice to expert.

## DigivibeMX Series

**DigivibeMX M30:** vibration analyzer, data collector and dynamic balancer.

**DigivibeMX M20:** vibration analyzer and data collector.

**DigivibeMX M10:** single and two-plane balancer.



# Advanced, but simple



## Functions

**M30**

**M20**

**M10**

3D ODS Analysis	●	●	
FFT Spectra 3D Waterfall	●	●	
Dual Channel Functions	●	●	
FFT Spectra with 2 million lines of resolution	●	●	
Lines and columns tendency (octaves)	●	●	
Statistical machinery condition	●	●	
Barcode generator	●	●	
Easy-to-use and understand ISO color alarm coding	●	●	
Intelligent Analysis	●	●	
Large Bearing Database	●	●	
Synchronize with other users easily	●	●	
Export to ASCII, WAV, UFF-58	●	●	
Gear calculator	●	●	
4 Channel, Trial Capable Option	●	●	●
Analysis and Balancing Reports ( CSS, Word, Excel)	●	●	●
Multilanguaje	●	●	●
Balancing in situ in 1 and 2 planes	●		●
Balancing calculator with 12 functions	●		●
Balancing without trial weights	●		●



Take a shot.  
Get the data.

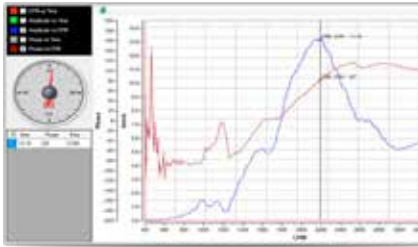
DigivibeMX can easily identify your machines using our embedded barcode generator and reader.

<sup>1</sup>Available on M20 & M30

## Advanced Analysis M30 M20 M10

Advanced features allow you to diagnose complex problems in machinery and structures avoiding high costs of downtime, collateral damage, and unplanned repairs.

The most common tool are:



- Time domain
- FFT Pointers
- CPM, Hz, Orders
- FRF & Bump Test
- Waveform Analysis- Transient Capture

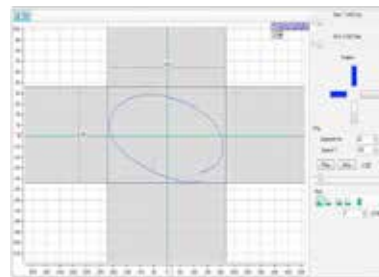
## Bearings and Gears M30 M20

**DigivibeMX** has a expandable data base with failure frequencies of more than 23,000 bearings. It also includes functions for frequencies calculation and analysis of gear boxes.

Designation	Type	Internal diameter	External diameter	Width	Dynamic load rating kN	Static load rating kN	Fatigue load limit kN	Reference speed
623	1 HB	3	10	4	0.54	0.18	0.007	130000
623-2RS1	1 HB	3	10	4	0.54	0.18	0.007	-
623-2Z	1 HB	3	10	4	0.54	0.18	0.007	130000
623-RS1	1 HB	3	10	4	0.54	0.18	0.007	-
623-Z	1 HB	3	10	4	0.54	0.18	0.007	130000
618/4	1 HB	4	9	2.5	0.54	0.18	0.007	140000
626/4-2Z	1 HB	4	9	3.5	0.54	0.18	0.007	140000
638/4-2Z	1 HB	4	9	4	0.54	0.18	0.007	140000
619/4	1 HB	4	11	4	0.715	0.232	0.0098	130000
619/4-2Z	1 HB	4	11	4	0.715	0.232	0.0098	130000
604	1 HB	4	12	4	0.806	0.28	0.012	120000
604-2Z	1 HB	4	12	4	0.806	0.28	0.012	120000
604-Z	1 HB	4	12	4	0.806	0.28	0.012	120000

## Dual Channels M30 M20

The Dual Channel function offers the advantages of reducing data collection time and providing information that cannot be obtained with single-channel analysis.



- Orbits
- Cross Power Spectrum
- Transference function
- Coherence function
- Bode
- Nyquist
- Phase Analysis

## Machinery Data Bases M30 M20

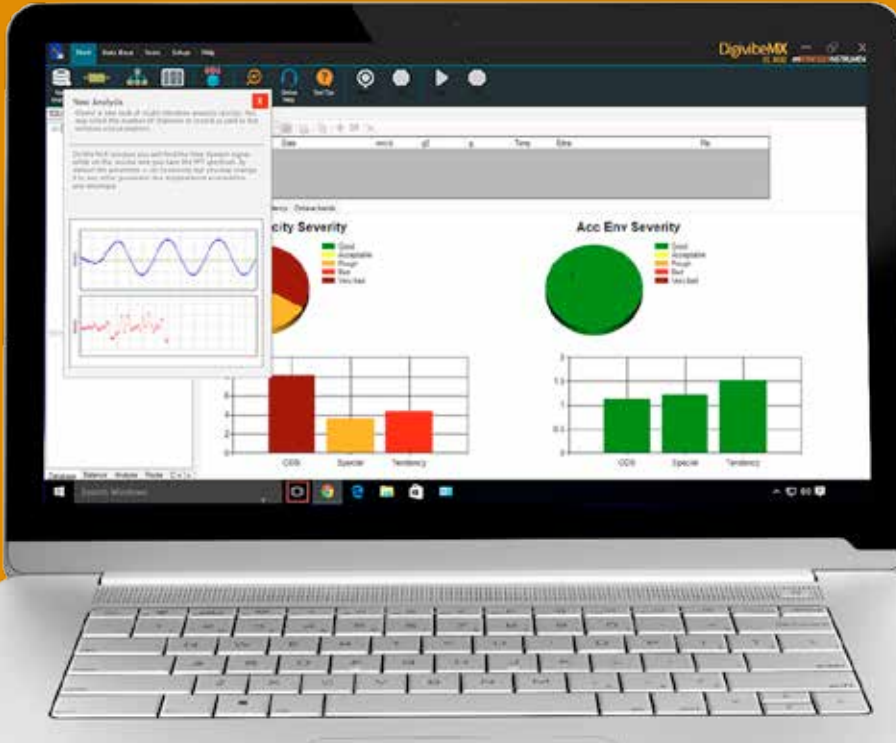


- Name, area & company.
- Measure points
- Type of coupling
- Iso Class
- Export/Import db

## Compatibility M30 M20



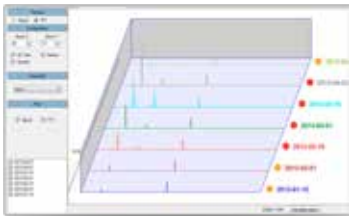
- ASCII\* Format
- UFF58 Files
- ANL BAL
- WAV (digital stethoscope)



**Functions and Tools** that allow you to diagnose the true status of your machines.

## Predictive Analysis Tools M30 M20

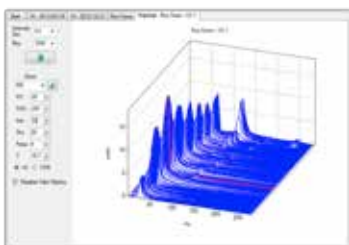
ESPECTRO EN CASCADA



DigivibeMX allows users to analyze all kinds of machinery with tools like:

- Machinery database and route collection capability
- Database with more than 23,000 bearings & a gear calculator
- Diagnosis Interpretation tool
- Cascade Spectra
- 3D ODS

## FFT Spectra M30 M20 M10



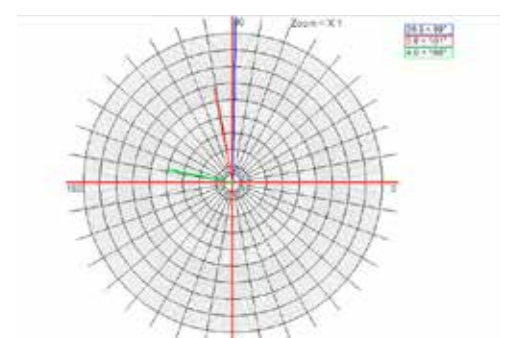
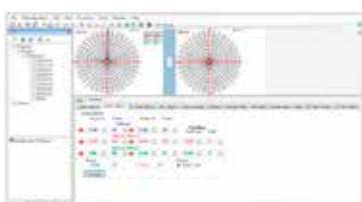
The spectral analysis tools in DigivibeMX are based on the FFT algorithm and able to measure very low frequencies from 0.4 Hz up to 30 kHz. The precision of the spectra adjusts based upon the point definition and can achieve up to 2 million lines of resolution.

- Spectra with up to 2 million lines of resolution
- Spectrogram
- 3D Spectra
- Pointers & cursors Zoom
- In - Zoom Out Markers
- FFT Averaging

## Dynamic balancing in 1 and 2 planes M30 M10

- Balance without trial weights
- 2 Polar graphs
- Calculator with 12 functions:

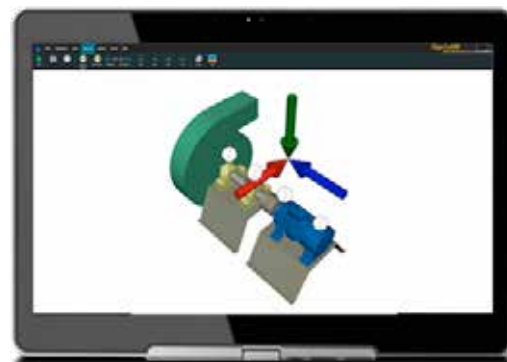
- Add or remove weight
- Separate or combine weights
- Trial weights
- Serial Balancing (without trial weights)
- Drill calculation
- Residual Imbalance
- Degree of quality
- Intelligent Machine Wizard
- Balancing Report



## ODS Function

M30 M20

ODS analysis is an easy task. Create a 3D machine model in 3D design software (3DS Max, Blender, Solid Works, Windows 3D Builder that comes free with Windows 10 etc). Import the model to DigivibeMX and generate a customized ODS analysis. The phase analysis also calculates the coherence between signals, cross power and transference to ensure that all recorded signals are consistent. 3D ODS simulations can be easily exported to AVI video or an animated GIF for presentation.



## 3D Cascade

M30 M20

The FFT graphic in 3D cascade (waterfall) is a spectral representation showing how collected data may vary over time. DigivibeMX includes a tool that generates this graph easily, with the ability to rotate and zoom - as in any 3D software.



## System requirements

to install and use Digivibe software:

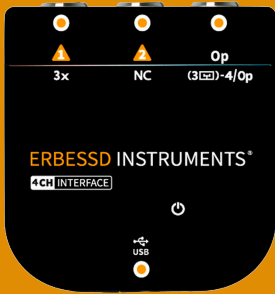
- › Minimum 1.6 GHz processor
- › Minimum 2 GB RAM
- › Windows 10 (also compatible with Windows 8.1 and Windows 7\*)
- › Minimum monitor quality - SVGA
- › Touch screen compatibility supported
- › 300 MB free disk space
- › 1 USB 2.0 port

\* Not compatible with Windows RT.



# DigivibeMX includes:

## GX400 4-Channel interface



- Port 1 for 24V triaxial or single axis
- Port 2 for BNC data or 24V single axis
- Op Port for Optical Sensor or single axis
- Op Port functions as 2 channels with optional splitter cable
- USB connector cable for Windows and Apple devices (45 cm)
- Weight 230g
- Dimensions (mm): 60(d) x 90(w) x 30(h)

## 2 Accelerometers



- Dinamyc Impact Shock: 80g peak (max shock 5000g)
- Freq. response (+/- 3dB): 0.32 - 13000 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
- Standard 2-Pin MIL connector
- Magnetic Base w/neodymium magnet
- Weight 50g
- Stainless steel body

## 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

### Soft Case & Magnetic Stand\*



### Cables



## 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
- 8 FFT windows: Rectangular, Hanning, Hamming, Flaptop, Blackman, CosSum, Bartlett, Kaiser
- Measures: 0-Peak, Peak to Peak, RMS

## Optional Accessories

### WiSER3x Triaxial Wireless Accelerometer



### WiSER Single Axis Wireless Accelerometer



### Triaxial Wired Accelerometer



### Digital Scale



200 g, 500 g & 1000 g



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