BETA Vibration Analyzer series

Advanced data collector, Vibration analyzer and rotor balancer

The **BVA14** Analyzer is an advanced, large screen route-based analyzer offered by BETA company. It enables users to perform regular monitoring of their rotating machinery. With its comprehensive features, the BVA14 Analyzer enables the rapid capture of a wide range of vibration data. This analyzer provides the flexibility to support applications essential to your company's specific predictive maintenance program.

Key features

- Simultaneous dual channel measurements for fast data collection
- Stroboscope
- Non-Contact IR Thermometer
- Rechargeable lithium battery supports eight hours of continuous data collection
- The 7-inch VGA color touchscreen display
- Wi-Fi data transfer
- Portable analyzer with different modules:
  - Analyzer & Online measurement
  - Orbit analysis & Live phase measurement
  - Rotor balancer
  - Stroboscope & Thermometer

Technical specifications

- Housing: ABS/IP65
- Dimensions: 200 × 200 × 55 mm
- Weight: 1100 g
- Operating temperature: -20 to 50 °C
- Memory: 256 Mb RAM
- SD memory card: Up to 32 GB
- Frequency range: 0 to 16 kHz
- Dynamic range: Up to 109 dB
- Spectrum lines: Up to 12800
- Meas. Windows: Rectangular, Hanning, Hamming and Flat Top

Vibration analyzer

- Route definition without limitation
- Acceleration, velocity and displacement signal are displayed for each measurement time
- BCU and envelope analysis for bearing diagnosis
- Overall values
- Alarm definition for velocity signal
- Chart zoom and cursor functionality
- Spectrum lines: 800, 1600, 3200, 6400, 12800

Rotor balancing

- One-plane, two-plane and four-run dynamic balancing
- Trial weight estimation
- Tools to split or merge weights
- Easy to use with the "guided" mode
- Result assessment according to ISO 1940
- Graphic display of measurements and weight positions

Live phase

- Absolute phase measurement with one vibration transducer and tachometer reference
- Relative phase (cross channel phase) measurement with two vibration transducers
- Upper frequency limit: 250 Hz to 2000 Hz
- Filtered phase measurement for 1x to 10x frequencies
- Spectrum lines: 200, 400, 800, 1600

Online Meas.

- Online measurement of time and frequency domain of velocity and acceleration
- Online RPM and overall value measurement
- Spectrum peak detection
- Spectrum 1x to 3x frequencies
- Meas. Windows: Rectangular, Hanning, Hamming, and Flat Top
- Spectrum lines: 400, 800, 1600 , 3200

Orbit analysis

- Route definition without limitation
- RMS of X and Y channel
- Acceleration and displacement input
- Designation magnitude and phase of maximum point on the plot
- Filtered orbit plot for 1x to 5x frequencies
- Definition of alarm levels for X and Y channels

Stroboscope

- Selection of reference from the tachometer or user-defined frequency setting
- Ability to generate the reference frequency multipliers from 0.25x to 5x

Non-contact IR thermometer

- Measures temperature from -70° to 380°
- Temperature measurement for practical materials
- User-adjustable emissivity settings
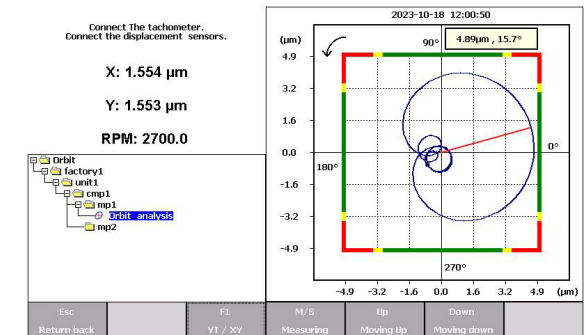
VibTrender PC software

- Unlimited route definition and management
- Database backup
- Advanced report generation
- Database for more than 9000 practical bearings
- Store the history of previous measurements