OneProd MVP-2C

Vibration Analyzer, Collector, Balancer, Two-channel DAT Recorder

OneProd$_{MVP-2C}$ is a portable vibration measuring device which includes all tools required for the monitoring of rotating machines and the diagnosis of their status. Its modular concept allows for the customization of its functions to your own requirements: **Data Collector, Analyzer, Recorder, Balancer, Order analysis**. Each module can be used with **1 or 2 measurement channels**.

Based on the most recent technology, **OneProd$_{MVP-2C}$** offers advanced performances in a very compact design:

- **Color display**
- **2x40 kHz** vibration **channels** + trigger input
- RS232 and USB communication
- Long-time waveform
- 512 MB memory
- Fast measurements using the **Flash acquisition**™ mode
- **Built-in contactless laser-sighting rotation speed** and **temperature transducers**, requiring no external accessories
- Automatic identification of measurement point by contactless reading of electronic tags **eTag**™
- **OneProd$_{MVP-2EX}$** *, Intrinsically **Safe version** to perform your measurements in areas where risks of explosion are permanent (Zone 0)

OneProd$_{MVP-2C}$: Data collector

For monitoring your machines jointly with the **OneProd$_{XPR-300}$** predictive maintenance software:

- Three levels of functions, **Easy**, **Advanced** and **Premium**, are available to match your requirements cost-effectively
- **Flash acquisition**
- **Two-channel** data collection
- Additional measurements (off route) with full capability

OneProd$_{MVP-2C}$: Analyzer

Measurements and diagnoses directly on your instrument.

- Available functions: real-time or averaged time signal, orbit, autospectrum.
- The **two-channel** option offers many possibilities, such as orbit analysis for journal bearing machines or transfer function for the characterization of mechanical resonance.

OneProd$_{MVP-2C}$: Balancer

This module is used to correct balancing defects on your machines.

- 1 to 4 balancing planes
- Graphic representation
- One-run balancing
- Information on the measurement steadiness (rotation speed, vibration)
- Definition of correction masses
- Assessment of balancing quality

OneProd$_{MVP-2C}$: Order analysis

The Order Analysis module of OneProd MVP-2C is used to measure the behavior of a machine during shutdown and start-up phases. This type of analysis allows for the detection of phenomena that are difficult to observe in stabilized state: resonance, critical speeds, bearing instabilities, etc.

01dB-Metravib
www.oneprod-system.com

AREVA

Technical specifications **MVP-2C**

General features

- Color back-lit screen, 320 x 240 pixels, 80 x 60 mm
- Keyboard with 21 multifunction touch-sensitive keys
- Memory: 512 MB
- Communication: RS232 and USB
- Pretest function
- Li-Ion battery, operating lifetime: 8 hours under intensive use
- Casing: ABS polycarbonate, IP65
- Compliant with EC standards
- Dimensions: 220 x 130 x 60 mm
- Weight: 0.9 kg (battery included)
- IP65 protection rating
- Operating temperature: from -10°C to 50°C
- Humidity: 90% without condensation
- Headphone output
- Intrinsically safe version: **MVP-2EX**, Ex II 1G / EEx ia IIC T4 *

Acquisition

- 2 acquisition channels + trigger input, 40 kHz (2nd channel in option)
- Inputs: IEPE, ± 10 V and ± 24 V, AC and DC
- Integration: 0,1 or 2 for acceleration, velocity or displacement
- Analysis on any type of signal: vibration, force, pressure, current (user-defined parameter and unit)
- Compatible with triaxial accelerometer
- Measurement modes allowing for optimized operating lifetime, dynamics and calculation time

Overall vibration level

- Standards VDI2056, NFE90100, ISO2954 and 10816, VDI2063
- Detection: RMS value, true or equivalent peak value, true or equivalent peak-to-peak value
- Defect factor from 0 to 12 (Indicator for bearing degradation at standard speed)
- Kurtosis measurement (shock detection for low-speed bearings)
- Alarms: 4 alarm types, from 2 to 4 threshold levels, trend alarm
- Display: thresholds, previous measurement, instantaneous measurement and stored measurement
- Programmable acquisition time
- Bargraph display
- Level displayed in EU and dB
- Built-in laser-sighting pyrometer**: Measurement range: from 0 to 200 °C, Measurement distance: from 1 to 30 cm, Response time: 1 s
- Built-in laser-sighting tachometer**: Measurement range: from 0 to 60000 RPM, Measurement distance: up to 2 m
- Any type of data by DC or keyboard input

Time analysis

- Number of samples: up to 32 K (max. 16 K in 2-channel mode) and 512 K with the Recorder option
- Sampling frequencies: up to 102.4 kHz
- Trigger on signal or trigger input. Adjustable post or pre-trigger
- Averaging: from 1 to 4096, exponential or linear weighting
- Signal demodulation after band-pass filtering (envelope)
- Orbit with 2-channel option

Spectral analysis

- Number of lines: from 100 to 12800 (max. 6400 maxi in 2-channel mode)
- Frequency bands: up to 40 kHz
- Zoom factor: 1, 2, 4, 8, 16, 32, 64, 128
- True zoom
- Averaging: from 1 to 4096, exponential, linear or peak-hold weighting
- Overlap: 0, 50, 75%
- Windowing: Rectangular, Hanning, Flat-top
- Trigger on signal or trigger input. Adjustable post or pre-trigger
- Envelope: spectrum of signal demodulated in a band-pass filter (width = from 1/2 to 1/128 around any center frequency)
- Phased spectrum for vector measurement
- Display: Lin/Log, automatic scaling, EU/dB, Hz/RPM
- Display of real-time spectrum or of averaging during acquisition
- Cursor: simple, harmonic and sideband cursors with peak coincidence and list of values. Peak search. Cursor functions are active in measurement mode.
- Two-channel functions of the Analyzer mode: cross spectrum, transfer function, transmissibility, coherence

Octave (CPB)

- Resolution: 1/1, 1/3 and 1/12 octave
- Analysis bands: from 1 Hz to 16 kHz

*OneProd MVP-2EX :

ATEX version, Ex II 1G / EEx ia IIC T4

Specific characteristics:

- Screen: 16 gray scales, 320 x 240 pixels,
- Battery, operating life: 6 h
- Weight: 1.3 kg (including battery)
- Maximum operating temperature in explosive area: 40°C
- *Functions not available: tri-axial compatibility, electronic tags, headphone output.*

** Class 2 laser, wavelength: 630-680 nm, maximum power: 1 mW according to Standard NF EN 60825-1