

3-AXIS SHOCK & VIBRATION SMART PROBE



PROPERTIES

- 3 axis accelerometer
- DC to 250 Hz useful bandwidth
- Low noise
- Compact and rugged design
- Protection grade IP67

POSSIBLE USE

- “Quick & dirty” vibration monitoring
- Real-time vibration analysis
- Real-time frequency and time analysis
- Vibration diagnosis
- Vibration modal analysis
- Machine tools - Automotive - Aviation
- Structural analysis and Health Monitoring

BENEFITS

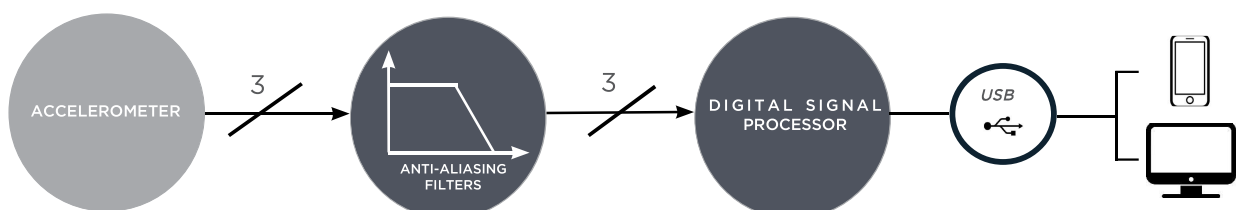
RECOVIB Feel has been designed for performing an immediate vibratory analysis. It is connected to an Android device or tablet PC via a USB connection. The supplied application enables the streaming of real-time vibration data on a chart in the time domain and in the frequency domain.

While streaming, it is possible to record vibration data in order to replay it in a data viewer, on your smartphone or your PC. The viewer allows for a detailed analysis of the vibrations recorded in the time domain and in the frequency domain.

Various signal processing options are available: high-pass, low-pass and band-pass filters, integrator filters (velocity mode) and dual-integrator filters (displacement mode).

In the frequency domain, several FFT-based computations are offered : Amplitude Spectrum Peak and RMS, Power Spectrum, Power Spectral Density and Amplitude Spectral Density.

BLOCK DIAGRAM



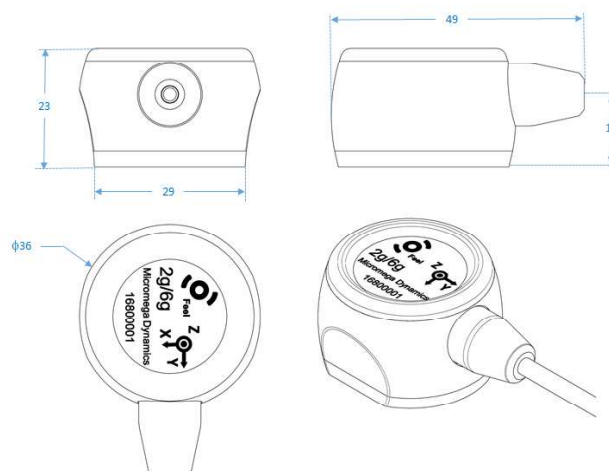
CERTIFICATIONS

| | STANDARD | STANDARD REFERENCE | LIMIT LEVEL |
|---|---|---------------------------|--|
| EMC COMPLIANCE | Radiated Emission | EN 55016-2-3/CISPR 16-2-3 | EN/IEC 61000-6-3 30MHz-1GHz |
| | Electrostatic discharge immunity | EN/IEC 61000-4-2 | 4kV by contact 2,4 & 8kV in air Criterion B |
| | Magnetic Field Immunity | EN/IEC 61000-4-8 | 30 A/m 50 & 60 Hz Criterion A |
| | Radiated, radio-frequency, electromagnetic field immunity | EN/IEC 61000-4-3 | 80 MHz - 1GHz 10V/m 1.4-2.0 GHz 3 V/m 2.0-2,7GHz 1V/m AM 80% 1kHz Criterion A |
| DUST & WATER INGRESS PROTECTION LEVEL | Degree of Protection provided by enclosures (IP code) | IEC60529 | IP67 |

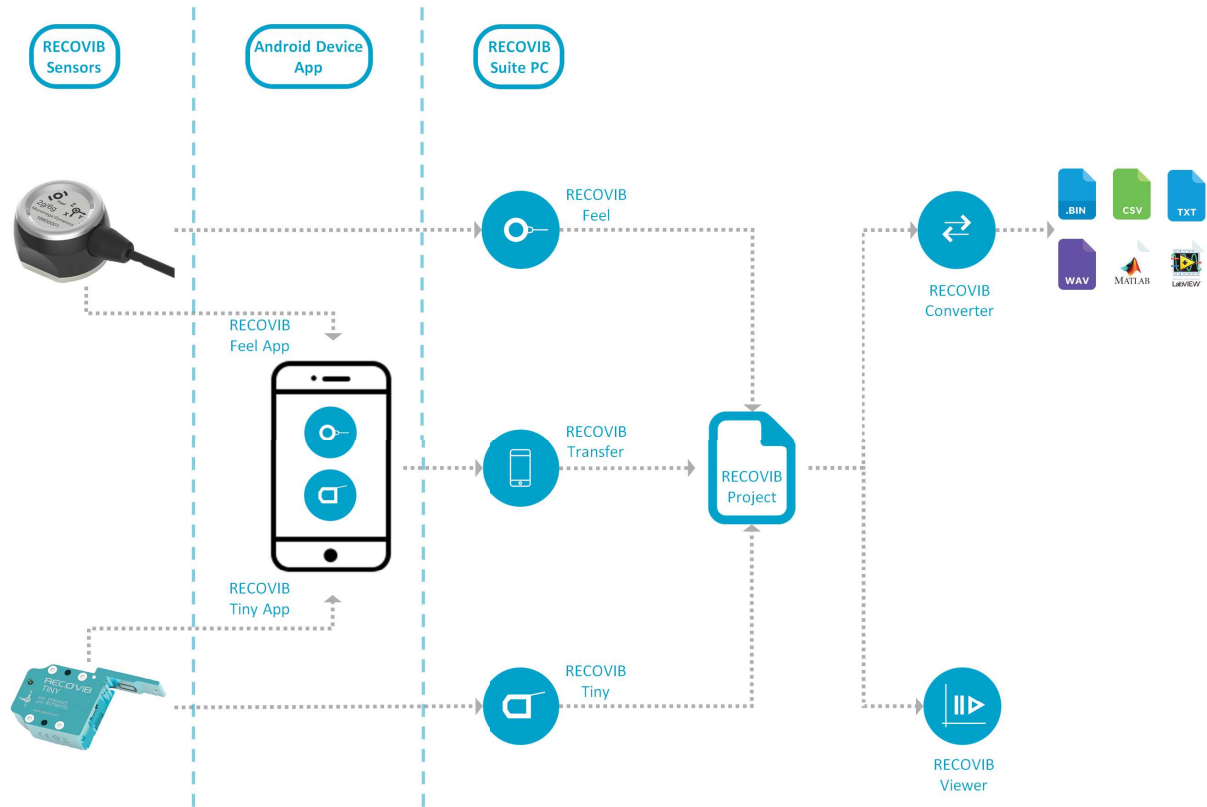
SPECIFICATIONS

| | | | |
|--------------------------------------|--|-------------------------|-----------------------|
| MEASUREMENT CHARACTERISTICS | Model | $\pm 2g$ or $\pm 6g$ | $\pm 15g$ |
| | Lower frequency limit | 0Hz (DC) | |
| | Passband frequencies (per channel) | 250 Hz | |
| | Output unit | m/s ² - g | |
| | Streaming rates (per channel) | 1024 samples per second | |
| | Non-linearity | $\pm 0,5$ % F.S. | $\pm 0,3$ % F.S. |
| | Residual noise density | 30 $\mu g/\sqrt{Hz}$ | 300 $\mu g/\sqrt{Hz}$ |
| | Residual noise (250Hz bandwidth) | 475 μg | 4.75 mg |
| | Transverse sensitivity | $\pm 2\%$ | |
| | Sensor technology | MEMS | |
| ENVIRONMENTAL CHARACTERISTICS | Operating temperature range | -10 .. 50°C | |
| | Temperature coefficient of sensitivity | ± 0.01 %/°C | ± 0.01 %/°C |
| | Temperature drift of zero point | ± 0.4 mg/°C | ± 1 mg/°C |
| | Protection grade | IP67 | |
| MECHANICAL DATA | Dimension | 46.8 x 30 x 23 mm | |
| | Weight | 45.3 g | |
| | Case Material | Aluminium | |
| AUTONOMY | Average Power Consumption (idle) | 39.15 mW | |
| | Average Power Consumption (streaming) | 57.35 mW | |
| SOFTWARE | Output format | Binary | |

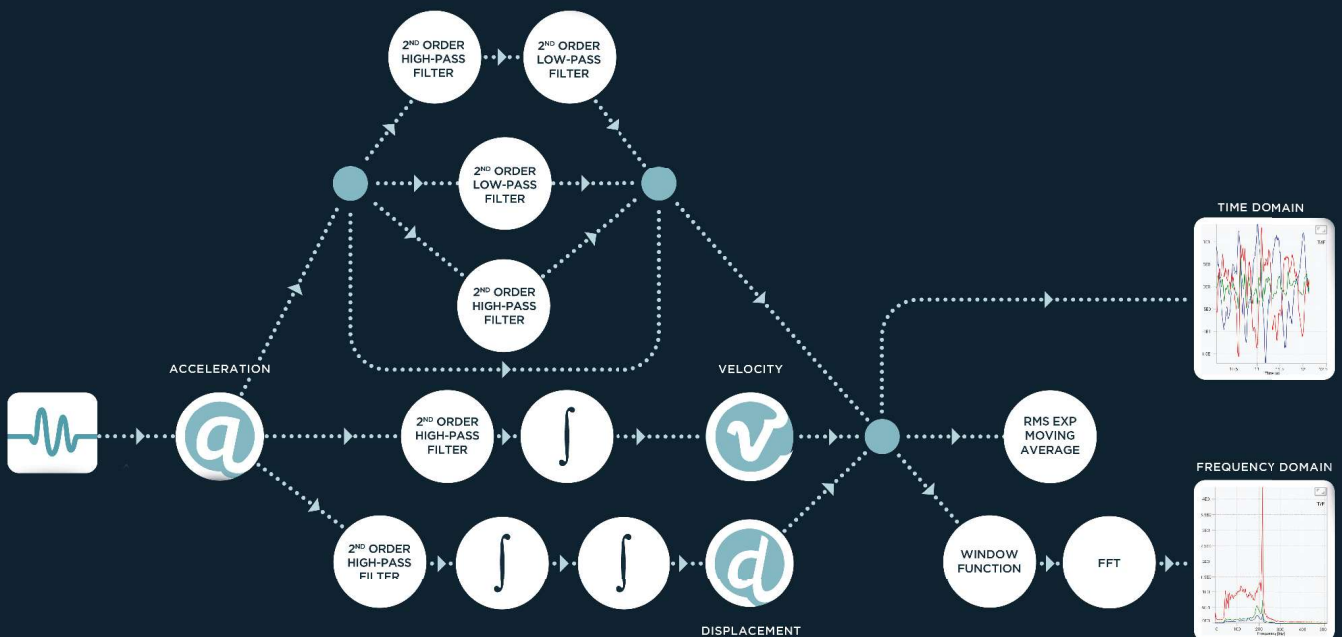
DIMENSIONS



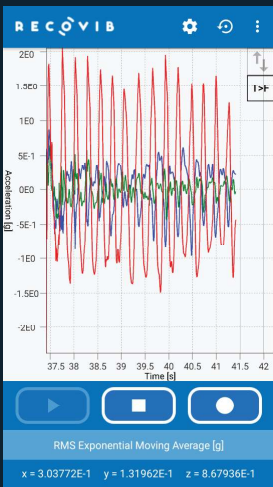
RECOVIB SUITE SOFTWARE



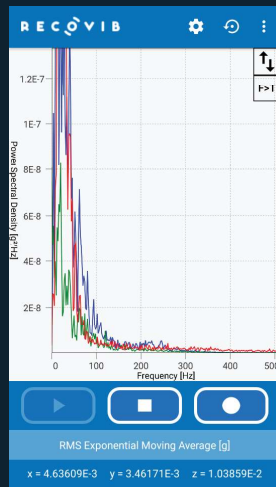
SIGNAL PROCESSING BLOCK DIAGRAM USED IN RECOVIB Feel ANDROID APP. AND RECOVIB VIEWER



RECOVIB Feel ANDROID APP.



Streaming mode



Analysis mode

RECOVIB SUITE COMPUTER SOFTWARE

Stream, Record and Analyze real-time vibration data thanks to our RECOVIB Suite SOFTWARE which includes 4 tools :



RECOVIB Feel

- Streaming real-time vibration data
- Recording real-time vibration data



RECOVIB Transfer

- Transfer the Android RECOVIB Projects from your Android devices to your computer



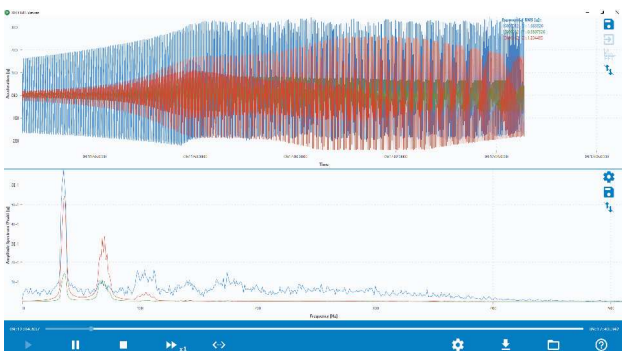
RECOVIB Converter

- Convert RECOVIB measurements into the format of your choice

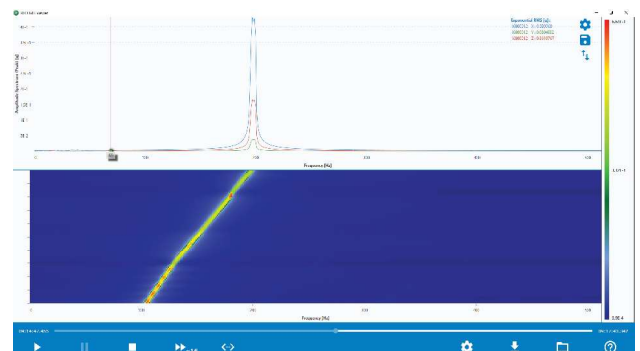


RECOVIB Viewer

- Analysis PC Software
- Replay and analyze data taken from RECOVIB Projects in the time and the frequency domain



DATA ANALYSIS



SPECTROGRAM FEATURE

REQUIREMENTS

ANDROID

| MINIMUM CONFIGURATION | RECOMMENDED CONFIGURATION |
|---|--|
| Minimum SDK Version : Android 4.4 (Kitkat) – API Level 19 | Target SDK Version : Android 7.0 (Nougat) – API Level 24 |
| RAM Memory : 2GB | RAM Memory : 4GB or more |
| USB OTG – USB Host | USB OTG – USB Host |

WINDOWS

| MINIMUM CONFIGURATION | RECOMMENDED CONFIGURATION |
|--|--|
| Windows 7 | Windows 10 |
| 64-bit operating system, x64-based processor | 64-bit operating system, x64-based processor |
| RAM Memory : 2GB | RAM Memory : 4GB (8GB or more for large projects manipulation) |
| | DirectX10 compatible GPU |

ORDER REFERENCE

SENSORS

| | |
|---|--|
| RECOVIB-FEEL 2G/6G | 3-axis logger ± 2g or ± 6g range (software selectable) |
| RECOVIB-FEEL 15G | 3-axis logger ± 15g range (fixed) |
| Each logger comes with one magnet and two USB adapters. It is intended to be stored in a specially designed suitcase. | |

ACCESSORIES

| | |
|--|--------------------------------------|
| FEEL-SUITCASE-1 | Suitcase for one RECOVIB Feel Sensor |
| Each suitcase includes a USB key with the software, a screwdriver, and has been designed for storing one sensor (including magnet and the two USB adapters). | |

ANDROID APP.

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|--|
| RECOVIB Feel |
| Downloadable on your Android devices via Google Play Store free of charge. |

COMPUTER SOFTWARE

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|---|
| RECOVIB Suite Computer Software |
| <ul style="list-style-type: none">• Available free of charge and delivered inside the suitcase• Downloadable via our website• Automatic updates |