



# ORION Smart Vibration Monitoring Terminal

Always keep an eye on vibrations!

# ORION

## Smart Vibration Monitoring Terminal

With urban development becoming ever more dense, new construction sites get under way every day. Such sites generate noise and vibration liable to have an impact on the health of workers, the peace and quiet enjoyed by nearby residents, and the physical integrity of buildings and architectural structures.

Vibrations created by construction equipment may cause structural damage (cracks, movement, collapse, etc.) or damage to sensitive equipment (computer systems, laboratory equipment, etc.). It is important to implement monitoring solutions so as to prevent these risks from the very start of a construction project.

**ORION** is the new addition to the **01dB** monitoring range, covering all vibration measurements created by human activity.

Borrowing the best features of **DUO** and **CUBE**, **ORION** offers unrivalled vibration monitoring performance.

**ORION** is fully integrated in the **01dB** ecosystem and shares the same web-based interface, **dBTrait** analysis software and **01dB WebMonitoring** online services as the other products in the range.



Demolition sites



Construction sites



Pile driving



Explosions (mines, tunnels)



Tunneling



Impact of transport (road, rail)

# With ORION, monitor vibrations differently!

**ORION** offers unrivalled vibration monitoring features: all-in-one (integrated sensor, 3G modem, Wi-Fi, GPS), robust, waterproof, easy to configure and use, seven measurement channels, smart integration of vibration standards, etc.

## ROBUST AND HARD-WEARING

Strong casing  
IP65 waterproof level  
Robust connectors  
Battery lifetime of 30 hours

## EASY TO CONFIGURE

QR code to log on  
Mobile application  
Web interface



## METROLOGICAL PERFECTION

Three internal vibration channels  
Three external vibration channels  
One pressure microphone channel  
Five integrated standards  
(including DIN 4150-3 and BS 5228-4)  
Smart alarms thresholds



## EASY TO INSTALL

Spirit level  
Can be mounted horizontally or vertically  
Automatic start-up of measurements

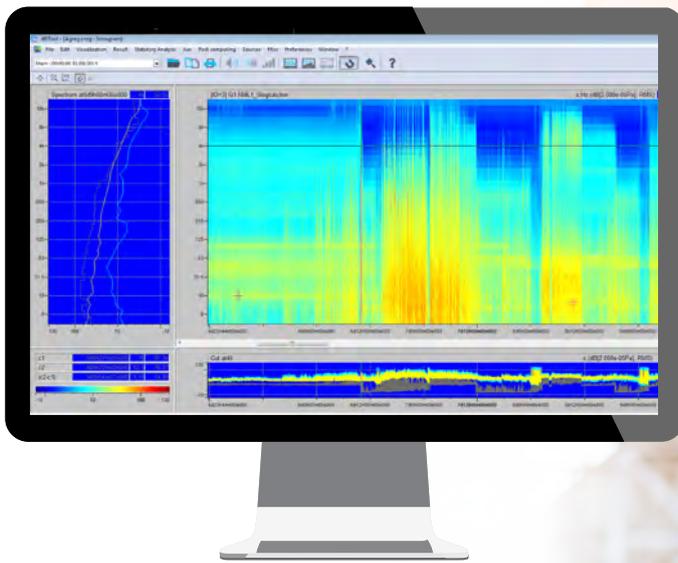
## ALWAYS CONNECTED

3G modem  
Wi-Fi  
Ethernet  
GPS  
Advanced Push mode  
HTTP commands for integrators

*With a view to improving productivity in the field, 01dB offers a comprehensive, coherent and metrologically flawless acoustic and vibration monitoring solution.*

# With dBTrait, analyze your data as an expert!

Measurement data collected using **ORION** can be analyzed using **dBTrait** software. Used by thousands of consultants around the world, this software offers all features needed to make the best use of acoustic and vibration data.



- Display of acoustic, vibration and meteorological data
- FFT analysis of recorded signals
- Comparison between different channels
- Sonogram
- PPV/Dominant frequency graph
- Multi-spectrum display
- Reporting including compliance with vibration standards

## In a class of its own!



# With 01dB WebMonitoring, management of monitoring is made easy.

Like DUO and CUBE, ORION interfaces with 01dB WebMonitoring online services to simplify monitoring and project management.

- Data storage and security
- Web interface
- Display of acoustic, vibration and meteorological data
- Real-time and offline modes
- Information displayed on an interactive base map
- Various configurable graphs
- Management of alarms activity
- Monitoring of SoH (State of Health) of the terminals
- Manual and automatic reports



**01dB WebMonitoring is cost-effective, reliable and versatile, freeing users from technical constraints and enabling them to focus on data analysis.**



Public or private website



Display of data



Automatic reports



Alarms management

## An entire ecosystem to enhance productivity!

01dB products are intended to increase productivity and are based on the same operating principles. They are used with identical data processing software and share the same accessories.



**CUBE** is the most versatile noise monitoring terminal on the market: it can be protected in a case or mounted in a cabinet, and is compatible with the **01dB WebMonitoring** range or can be easily integrated with your applications.



**FUSION** is the first hyper-connected sound-level meter that allows you to envisage new working methods. It offers a simple solution to test conformity to construction, environmental, health and safety requirements.



**DUO** is completely modular and offers users a wide range of options to switch from sound-level meters to monitoring stations without needing to change equipment.



**01dB products** interface with Vaisala weather stations. Meteorological data is stored and transmitted in the same way as acoustic and vibration data.



**dBTrait** is a high-performance software program for the post-processing of acoustic, vibration and meteorological data acquired with all **01dB** instruments.



**01dB WebMonitoring** is a simple and effective cloud-based solution for the management of acoustic and vibration monitoring projects: data storage and security, online display of measurements via a website, alarms management, etc.



Stay tuned to 01dB



### ACOEM

Smart monitoring, diagnosis & solutions

In today's complex and increasingly fast-moving world, it is essential to keep risks under control. ACOEM helps customers in the industrial, environmental and defence sectors make the right decisions and take the right actions:

- to ensure the productivity and reliability of industrial machines
- to prevent noise and vibration pollution
- to protect personnel, sites and vehicles in military theaters of operation
- to contribute to the development of effective, robust & noiseless products

All around the world, ACOEM's 450 employees are at the forefront of innovation in monitoring, maintenance and engineering through 01dB, ONEPROD, FIXTURLASER, MEAX and METRAVIB.

For more information, visit our website at [acoemgroup.com](http://acoemgroup.com)



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