

Fusion Smart Sound & Vibration Analyser

ACCURATE, ACTIONABLE
DATA, ALWAYS



acoem
CREATING ENVIRONMENTS OF POSSIBILITY



At Acoem, our aim is to shorten the path between monitoring and informed action. As a globally recognised provider of class-leading multi-parameter environmental monitoring solutions, we offer our customers a complete range of measurement technologies and services.

For more than 40 years we have been designing and manufacturing integrated solutions that easily adapt to changes in technology, to ensure that your equipment is always up to date and operates with maximum efficiency.

We believe in helping our customers find the right balance between progress and preservation. We empower industries, government, scientists and communities to make knowledgeable decisions based on our accurate and reliable data. Our holistic solutions lead to operational excellence and better outcomes.

Together, we create environments of possibility.



Fusion™ is a signature product in Acoem's class-leading and globally trusted suite of noise and vibration monitoring solutions. Designed to suit all applications, Fusion is a multi-functional sound level meter, designed to increase productivity. Simple to use, and as effective handheld as it is on a tripod, this instrument is ideal in all measurement situations. Boasting powerful functionality for onsite analysis, Fusion is an innovation in sound level meters.

Fusion Smart Sound & Vibration Analyser

THE ULTIMATE NOISE & VIBRATION MONITORING SOLUTION

Powerful Functionality

Featuring fully integrated components like built-in 4G connectivity, GPS and WiFi, Fusion has a compact, robust and ergonomic design perfectly suited to field work. Exceptional functionality and certified metrology ensure excellent reliability and accuracy. With the ability to operate autonomously for 24 hours, FUSION goes the distance.

Key Features

- Enhanced 4G connectivity (no external modem required)
- IEC 61672-2 class 1 certification for use in multiple countries
- High data transmission speeds Remote access control measurement settings
- Download digitised acoustic, metrological & vibration data via a WiFi network

Always Connected... Whenever & Wherever

With a built-in 4G modem, Fusion is the first hyperconnected sound level meter on the market, offering a new way to measure sound. Whatever your project needs, Fusion has the answer. With Fusion you will always be fully connected to your monitoring projects.

- Automatic publication of accurate, actionable real-time data
- Listen to audio remotely in real time
- Record audio & video of events (external camera required)
- Receive SMS notifications if predetermined thresholds are exceeded.

Wireless Vibration

Say goodbye to cables. Fusion is the first sound level meter to offer completely wireless vibration measurement.

Connect Fusion to a powerful vibration sensor and it will record and store 3-axis vibrations in parallel, audio signals and all noise indicators.



Break the Cycle of Unnecessary Wastage – Future-Proof Your Investment

Acoem designs and manufactures its range of noise and vibration monitoring solutions with changing technology in mind. We understand that as a monitoring professional, you want the best possible technology available today, plus the ability to future-proof your investment and maximise return on investment.

With communication infrastructure constantly evolving, Acoem will always have an easy upgrade path ready to enhance your instrument, adding extra years to the working life of your trusted monitoring equipment.

It is part of our commitment to doing “more with less” and creating environments of possibility where our customers learn to upgrade their technology — giving them access to the right data solutions without having to continually buy new hardware.

The Simplicity of One Ecosystem

By designing our noise and vibration measurement instruments on a single ecosystem, Acoem allows for greater inter-connectivity between devices and components. All our instruments are designed to increase productivity and are based on shared operating principles, a common data processing software platform and similar accessories.

This translates to ease of operation and the ability to quickly adapt between features and models across the Acoem range.

If Fusion is your first purchase from the Acoem range, you will appreciate its ease of use, degree of remote controllability, reliable connectivity and the power of its post-processing software.



We Understand Real-World Noise Monitoring

We based the design of Acoem's integrated 4G Fusion on considerable research and our intrinsic knowledge of how our customers use their instruments in the field.

Noise monitoring in the real world is far from glamorous. More often than not, it takes place in dusty, dirty and hard to access places, sometimes in extreme weather and under difficult circumstances.

Safety should always be your primary concern, so with all features accessible via a full-colour interface and built in 4G modem, you can focus on the environment around you and not connections, cables and laptops.

Whether monitoring in situ or by remote access, we understand that actionable, real-time data whenever and wherever it is needed is critical.

Certified for use in multiple countries around the world, Fusion with enhanced mobile connectivity allows measurement data to quickly and efficiently push to online systems, for integration with Acoem's proprietary WebMonitoring software and customisable web interface.

The Multi-Tasker

Noise consultants are called upon to measure and monitor a variety of noise and vibration issues. On any given day, they might evaluate the impact of noise on industrial sites, measure sound insulation between housing units or analyse induced vibrations on the pavement above an underground train.

Rather than using different measuring instruments for each application, Fusion brings them all together in one compact unit. Switch from one measurement to another in the blink of an eye.

Pushed Audio, Video & Data Combined

Detecting and providing information about noise and vibration measurement is critical to the monitoring process. With the Fusion event detection filtering system, each event generates event markers, signal recordings (MP3 or WAV), SMS notifications and warning lights as required.

By adding audio and video functionality, Fusion lets you not only see the data, but the event that caused it. Recorded audio and video which is stored on our server, also provide historical back up for regulatory compliance, internal/external reporting, operational assessment or proof of monitoring in legal proceedings.

Acoem WebMonitoring

Using Fusion with Acoem WebMonitoring services, your measurement data is available on a customisable full-colour web interface, giving you everything you need for successful monitoring.

- Direct access to high-performance web services
- Secure cloud storage of data
- Online presentation of measurements on a customised interface
- Periodic system verification & maintenance
- Real-time monitoring of alarms.

Together Cube and Acoem WebMonitoring help make the most of your expertise and give you accurate, real-time analysis of your vital monitoring data.

Smart & Powerful

Fusion measures noise and vibration succinctly and accurately. Its powerful functions are designed to optimise your operational efficiency, including:

- Continuous audio recording
- Event video recording (with external camera)
- Innovative trigger threshold definition
- Advanced noise indicators
- Automatic calibrator detection
- Periodic electrical checks
- Remote setting changes for listening.



Proprietary Acoem Software

Fusion ensures that measurements are metrologically accurate, perfectly structured and sent to your data server on a regular basis.

To meet your diverse project requirements, Acoem offers a selection of software tools (dBTrait, dBFA, etc.) with advanced functionality to visualise, exploit and analyse your data.

Install Acoem software on multiple devices with no security key needed to process your data seamlessly.



One Tool to Meet All Your Needs

Metrological

- IEC 61672 Class 1
- 40 CD G.R.A.S. microphone
- Built-in preamplifier
- Self-check system

All-In-One

- Built-in WIFI
- Built-in 4G modem
- LAN interface
- Built-in GPS antenna

Innovative

- Wireless 3-axis vibration signals measurement
- Simultaneous recording of noise signals
- Storage of multiple noise indicators at once
- Audio & video of events (using external camera) for review on our server

Connected

- 4G connectivity
- Fully remote controlled
- Noise event SMS notifications
- Operational problem SMS notifications
- Connection to infrastructure WiFi network

Generalist

- Environmental measurements
- Building acoustics
- Vibration measurements
- Health & safety measurements

Smart

- Automatic calibrator detection
- Advanced triggers
- Advanced noise indicators
- Time synchronisation
- Multi-point synchronised encoding

Powerful

- 24-hour autonomy
- High-capacity SD memory card (128 GB)
- Metrological audio & video recording (with external camera)
- Integrates with multiple software processing packages

Easy to Operate

- High-definition full colour interface
- 3-key silent keyboard
- Rubber side grips
- Windscreen claw
- Handle fit to profile

Accessories

- DSC01 all-weather case
- DMK01 outdoor microphone
- Weather station



Acoem at Your Service

Investing in Fusion not only means acquiring a high-performance sound level meter but also access to Acoem's exceptional Customer Support. A complete suite of services is included as standard with your instrument:

- Hotline
- Calibration laboratory
- Rental systems.
- Training
- Repair centre

A flat-rate annual service contract allows you to optimise your operating budget by selecting the services you really need. With the support of Acoem Services, your instruments are always operational and guaranteed to function at their optimal level.

Accessories

ACOEM offers a complete range of accessories that complement Fusion and helps make it even more efficient to operate, including:

- 12/24-day battery for greater autonomy
- Weather-proof case
- Special grip
- Outdoor microphone
- 2 or 6 sensor weather station interface
- Tapping machine
- Noise source.

About Acoem

At Acoem, we create environments of possibility – helping organisations find the right balance between progress and preservation – safeguarding businesses and assets, and maximising opportunities while conserving the planet’s resources. We deliver unrivalled, interoperable AI-powered sensors and ecosystems that empower our customers to make enlightened decisions based on accurate information.

Together with 150 distributors, our 800+ employees work across 27 offices, 5 manufacturing facilities and 3 R&D centres in 11 countries to provide trusted, holistic data solutions for customers worldwide.

Acoem links possibilities with protection.

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