DUO
Smart Noise Monitor
Sound level meter & monitoring station
DUO Smart Noise Monitor
Your projects, our solution

DECADES OF INNOVATION

DUO Smart Noise Monitor is part of a best generation of ACOEM instruments – a breakthrough in environmental noise assessment.

DUO is completely modular with a comprehensive range of options that lets you use it either as a sound level meter or a fully-fledged noise monitoring station.

DUO can be customised and configured according to individual project specifications, avoiding additional costs. As requirements change, new options can be added to the same unit.

If you have a one-off requirement, ACOEM offers a variety of solutions, including monthly rental plans and WebMonitoring services for medium term monitoring.

DUO provides customers with innovation, versatility and an unrivalled scope of support services.

INNOVATION AT YOUR FINGERTIPS

ACOEM’s DUO incorporates the latest technology to create an innovative solution to meet every customer’s needs.

DUO has a high-quality finish; easy fastening profile for mounting securely on a tripod; soft touch rubber grip; and sunlight-proof colour display legibility. Stand-out features include DUO’s one-of-a-kind, weather and waterproof microphone for use in all conditions, and fully integrated GPS and WiFi / 3G connectivity for remote operation.

A SMART SYSTEM

DUO software system is the result of ACOEM’s decades of expertise in environmental monitoring. The system offers the highest metrological quality and an unparalleled range of functions including:

• Accurate & relevant noise indicators
• A smart system of event detection filters
• Continuous metrological audio recording
• Remote listening capability
• Automatic calibrator detection
• Electronic checks to ensure flawless metrology
• IEC 61672 Class 1 certification (for 0° and 90° reference directions) by LNE, PTB and METAS laboratories.
**EVENT DETECTION**

When an aircraft flies overhead, **DUO** automatically detects the event, encodes data and triggers an audio recording. This is made possible by customisable detection filters with user-defined actions (markers, audio, TTL triggers, SMS notification etc.). This exclusive **ACOEM** solution, allows any kind of noise event to be detected and monitored.

**LOCAL WEATHER STATION**

Looking for answers as to why noise levels exceeded the annual average at a race circuit on any particular day? Connect **DUO** to the weather station via a single cable to get the answer - the wind speed was greater than 5 m/s that day.

With **DUO**, **ACOEM** provides an integrated solution for more accurate monitoring and measurement of noise phenomena in sport and leisure activities.

"**ACOEM offers the most versatile solution on the market**"
ALWAYS ON ALERT

Noise levels at construction sites require regular monitoring and complaints must be dealt with quickly and effectively. DUO features a high-performance alert system. If predefined limits are exceeded or the battery is low, you will receive an SMS notification, centrally managed by the ACOEM WebMonitoring service. As an added security measure, an SMS message will also be sent if the unit moves by more than 10 metres.

ALWAYS UP TO DATE

Capturing noise level measurements at industrial sites is a complex task, due to factors such as multiple noise sources, variable operations on site, and the effect of weather conditions. With integrated GPS, DUO can perform localised and synchronised measurements to identify the influence of different noise sources at various times of the day.

“IEC 61672 Class 1 certification (for both 0° and 90° reference directions) demonstrates the level of care taken by ACOEM to ensure DUO’s metrological quality”

EASY TO INSTALL

Wind farms are often installed in areas that are difficult to access. As a result, installation and remote monitoring constraints need to be taken into consideration in the noise impact study. DUO’s all-in-one, all-weather design offers the perfect solution, with easy installation (no cables), a 60 hour battery life and an integrated 3G modem to retrieve data without having to leaving the office.

DUO also provides the core metrology for RoBin, a system dedicated to measuring sound power levels from wind turbines in accordance with IEC61400-11. Designed and validated by expert acousticians, RoBin ensures optimal flexibility on site including wireless connectivity; only one operator required; and automated calculation and reporting.

“À la carte” services

ACOEM WebMonitoring

Based on a fixed monthly subscription, ACOEM offers a range of WebMonitoring services, from stations rental including 3G subscription to cloud storage and a dedicated, customised website. These services are available to all customers who purchase DUO to support noise monitoring projects.
All-in-one
An innovative sound level meter
A smart monitoring station

ACOUSTIC NOSE CONE 0°/90°
- Two reference directions 0° and 90° (configurable)
- IEC-61672 Class 1 certified by LNE, PTB and METAS

INTEGRATED GPS ANTENNA
- Time synchronisation
- Multi-point synchronised markers
- Localisation

WEATHERPROOF MICROPHONE
- G.R.A.S. exclusivity
- Calibrator automatic detection
- Self-check system based on charge injection

INTEGRATED WIFI/3G MODEM
- Remote control
- Automatic downloading of data
- Noise event SMS notification
- Operational problem SMS notification

RUBBER SIDE GRIPS
- Improved grip

WATERPROOF METAL CASING
- Easy outdoor installation
- Treated against corrosion

COLOUR DISPLAY
- High definition
- Legible in sunlight

3-KEY KEYBOARD
- Simple to use
- Noiseless operation

60 HOUR BATTERY LIFE
- Flexibility of use

2-128 GB MEMORY CARD
- Unlimited storage
- Appropriate noise indicators
- Metrological audio recording

ACCESSORIES
- DSC01 all weather case
- DMK01 outdoor microphone
- Weather station
About ACOEM
Reduce your environmental impact

In today’s fast-moving world, the environment is increasingly impacted. The ACOEM Group is committed to sustainable development and help companies and public authorities limit their environmental impact by offering products and services that:

• Prevent and control air, noise and vibration pollution
• Increase the productivity and reliability of industrial machinery
• Contribute to the development of effective, robust & noiseless products
• Protect soldiers, sites and vehicles in military theaters of operation

The ACOEM Group is based in Limonest, France, and has 17 subsidiaries and offices around the world. The Group generates an annual turnover over €100 million and currently employs 750+ people globally.

For more information, please visit our website at acoem.com