

Measuring Noise in the Construction Industry

Instruments for
carrying out
occupational and
environmental
noise surveys on
construction sites

An eBook from the noise experts at

 **Cirrus**
Research plc

Noise measurement solutions from Cirrus Research

Environmental noise and ambient noise level measurement

Optimus+ is our flagship range of noise measurement instruments and provides all the features and functionality required to measure both environmental and occupational noise.

- ✓ Measures all required noise parameters simultaneously
- ✓ Available with 1:1 and 1:3 octave band analysis for a more detailed understanding of the noise levels
- ✓ Meets BS EN 61672 and available as either a Class 1 or Class 2 instrument
- ✓ Available with PTB Type Approval
- ✓ Comes with licence-free reporting and analysis software, as standard
- ✓ Ergonomic design with clear-to-read display and easy-to-use interface
- ✓ Optimus+ Red for occupational noise
- ✓ Optimus+ Green for environmental noise



For longer-term outdoor noise monitoring projects, the Optimus+ Green can be used together with the Environmental Noise Measurement Kit.

- ✓ Unlock longer-term noise monitoring with the weatherproof casing provided by the Environmental Noise Measurement Kit
- ✓ Flexible power options to suit your needs
- ✓ Remote access to noise data at any time you need it with cloud connectivity through mobile data
- ✓ Stay in control of your noise impacts with real-time alerts direct to your email inbox or smartphone through push notifications



Remote long-term noise monitoring

Quantum is our latest range of noise monitoring devices, characterised by its cloud connectivity. Quantum makes long-term remote noise monitoring easy and takes the stress away from keeping people and your organisation safe from the risks presented by excessive noise. Quantum is like having an acoustic consultant working for you 24/7.

- ✓ Quantum Indoor: Class 2 indoor noise monitor for occupational noise monitoring
- ✓ Quantum Outdoor: Class 1 outdoor noise monitor for environmental noise monitoring
- ✓ Instant access to all your noise data through the easy-to-use MyCirrus cloud platform and Quantum Portal
- ✓ Noise events captured at pre-set noise levels with automatic audio recording
- ✓ Real-time alerts to your email inbox and smartphone
- ✓ Add other environmental conditions to Quantum Outdoor such as weather, dust and gas monitoring
- ✓ Self-system-integrity check on the Quantum Outdoor automatically scans for any anomalies in the instrument's system



For personal noise exposure level monitoring

For personal noise exposure monitoring, Cirrus Research offers the doseBadge range of noise dosimeters. Available in two distinct variants, the doseBadge is the world's first completely wireless noise dosimeter, a design that continues to influence the market more than 25 years after it was introduced.

- ✓ Measures and stores all necessary noise at work data, including L_{Aeq} and L_{Cpeak}
- ✓ Compact rugged design means it's comfortable enough to be worn all day and can withstand the most rugged environments
- ✓ Quick to charge and long battery life
- ✓ No external cables, controls or displays, making the instruments totally tamperproof
- ✓ **Intrinsically Safe** version available for use in environments with potentially explosive atmospheres



The doseBadge⁵ is the advanced variant of the original doseBadge, adding more features and functionality to become the ultimate personal noise exposure monitoring tool.

doseB▲dge⁵



- ✓ Measures and stores all necessary noise at work data, including L_{Aeq} and L_{Cpeak}
- ✓ **1:1 octave band filters** as standard
- ✓ **Pre-programmable measurement timers**, so you don't have to be present to start/stop your measurements
- ✓ **Bluetooth® connectivity** so each badge can be controlled remotely either through the control wand or a compatible smartphone
- ✓ Quick to charge and long battery life
- ✓ No external cables, controls or displays, making the instruments totally tamperproof

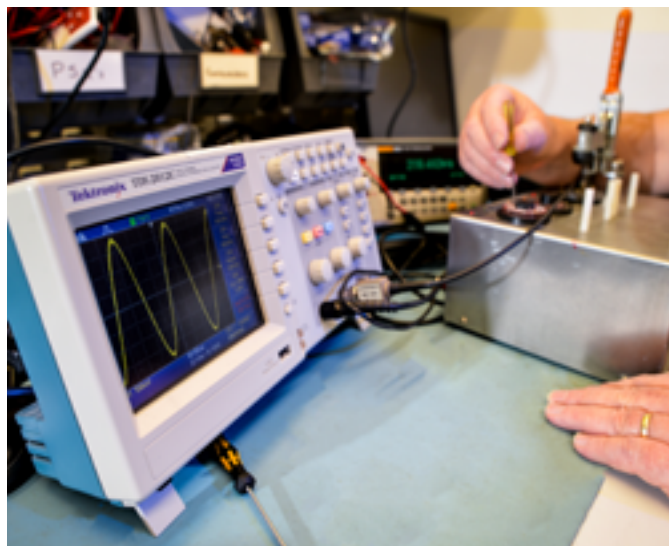
Periodic verification and instrument calibration

Regular factory calibration or periodic verification is one of the most important aspects of owning and using noise measurement equipment. As well as providing noise measurement equipment, Cirrus Research is also renowned as a leading calibration laboratory, capable of performing rigorous and in-depth checks on all acoustic measurement equipment.

In addition to checking that your noise measurement equipment is working exactly as it should, we are able to make any necessary adjustments in order to guarantee your equipment passes its calibration. Imagine if your mechanic fixed all your MOT issues for free so it would pass - that's what we do, but for your noise measurement equipment!

We also have a UKAS-accredited calibration laboratory on-site (lab no. 10148) to meet the strictest quality requirements. You can read more about our scope of accreditation on the UKAS website:

https://www.ukas.com/wp-content/uploads/schedule_uploads/00001/10148%20CalibrationSingle.pdf



Training and support

The Noise Academy from Cirrus Research provides a range of training opportunities to help deepen your understanding of noise measurement and provide you with the confidence to collect accurate and reliable data.

- ✓ Product-specific training courses, so you can get to grips with your equipment.
- ✓ Noise at work awareness courses, to provide you with the knowledge you need to confidently address occupational noise issues.
- ✓ Environmental noise courses, to provide you with a great understanding of the regulations involved and methods required to effectively manage noise pollution.



About Cirrus Research

Established in 1970 in the UK, Cirrus Research is one of the world's leading names in acoustic measurement.

We are dedicated to the prevention and eradication of noise-induced hearing loss and environmental noise pollution. We achieve this by developing and supplying high-quality, simple-to-use and accurate acoustic measurement instrumentation and complementary products and services, that make the measurement of noise, vibration and other environmental conditions as easy and accessible as possible to individuals and organisations worldwide.



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References

- ¹ European Commission, available at https://ec.europa.eu/environment/noise/health_effects_en.htm
- ² Health & Safety Executive, available at <https://www.hse.gov.uk/construction/faq-noise.htm>
- ³ Environmental Protection Act 1990, available at <https://www.legislation.gov.uk/ukpga/1990/43/contents>
- ⁴ Control of Pollution Act 1974, available at: <https://www.legislation.gov.uk/ukpga/1974/40>
- ⁵ BS228 Code of Practice for Noise and Vibration Control on Construction and Open Sites
- ⁶ Control of Noise at Work Regulations 2005, available at: <https://www.legislation.gov.uk/uksi/2005/1643/contents/made>

