# Certificate of Calibration

Issued by University of Salford (Acoustics Calibration Laboratory)
UKAS ACCREDITED CALIBRATION LABORATORY NO. 0801



APPROVED SIGNATORIES
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[redacted]

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UKAS CALIBRATION
0801

University of Salford MANCHESTER

Certificate Number: 04280/1 Date of Issue: 28 May 2019

## CALIBRATION OF A SOUND CALIBRATOR

| | |
|---|---|
| FOR: | noise.co.uk Ltd<br>The Hay Barn<br>Newnham Grounds<br>Kings Newnham Lane<br>Bretford<br>Warks<br>CV23 0JU |
| FOR THE ATTENTION OF: | Samantha Hargreaves |
| DESCRIPTION: | Calibrator with housing for one-inch microphones and adaptor type 1443 for half-inch microphones. |
| MANUFACTURER: | Norsonic |
| TYPE: | 1251 |
| SERIAL NUMBER: | 33824 |
| DATE OF CALIBRATION: | 28/05/2019 |
| TEST PROCEDURE: | CTP06 (Laboratory Manual) |

Test Engineer (initial): GP Name: Gary Phillips

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## MEASUREMENTS

The sound pressure level generated by the calibrator was measured using a calibrated, WS2P condenser microphone as specified in this certificate. The calibration was carried out with the calibrator in the half-inch configuration.

Five determinations of the sound pressure level, frequency and total distortion were made.

The results have been corrected to the reference pressure of 101.325 kPa using manufacturer's data.

## RESULTS

| | |
|---|---|
| Coupler configuration: | Half-inch |
| Microphone type: | GRAS 40AG |
| Output level (dB re 20μPa): | 114.23 dB ± 0.10 dB |
| Frequency (Hz): | 1000.06 Hz ± 0.12 Hz |
| Total Distortion (%): | <0.3 % ± 0.32 % |

Average environmental conditions at the time of measurement were:

| | |
|---|---|
| Pressure: | 100.645 kPa ± 0.015 kPa |
| Temperature: | 22.8 °C ± 0.4 °C |
| Relative humidity: | 40.6 % ± 2.4 % |

*The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.*

*All measurement results are retained at the acoustic calibration laboratory for at least four years.*