



CERTIFICATE OF CALIBRATION



0653

Date of Issue: 23 May 2024

Certificate Number: UCRT24/1777

Calibrated at & Certificate issued by:

ANV Measurement Systems

Beaufort Court

17 Roebuck Way

Milton Keynes MK5 8HL

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Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

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Approved Signatory

K. Mistry

Customer RSK Acoustics
4205 Park Approach
Thorpe Park
Leeds
LS15 8GB

Order No. P7621681

Description Sound Level Meter / Pre-amp / Microphone / Associated Calibrator

| Identification | Manufacturer | Instrument | Type | Serial No. / Version |
|----------------|--------------|---------------------------------------|----------|----------------------|
| | Svantek | Sound Level Meter | SV 971 | C111622 |
| | Svantek | Firmware | | 1.14.1 |
| | Svantek | Pre Amplifier | SV 18 | C112636 |
| | Svantek | Microphone | SV 7052E | 80039 |
| | Brüel & Kjær | Calibrator | 4231 | C001 |
| | | Calibrator adaptor type if applicable | | UC 0210 |

Performance Class 1

Test Procedure TP 10. SLM 61672-3:2013

Procedures from IEC 61672-3:2013 were used to perform the periodic tests.

Type Approved to IEC 61672-1:2013 Yes

If YES above there is public evidence that the SLM has successfully completed the applicable pattern evaluation tests of IEC 61672-2:2013

Date Received 20 May 2024

ANV Job No. UKAS24/05386

Date Calibrated 23 May 2024

The sound level meter submitted for testing has successfully completed the periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed. As evidence was publicly available, from an independent testing organisation responsible for approving the results of pattern-evaluation tests performed in accordance with IEC 61672-2:2013, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013, the sound level meter submitted for testing conforms to the class 1 specifications of IEC 61672-1:2013.

| Previous Certificate | Dated | Certificate No. | Laboratory |
|----------------------|-------|-----------------|---------------------|
| | | | Initial Calibration |

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UKAS Accredited Calibration Laboratory No. 0653

Sound Level Meter Instruction manual and data used to adjust the sound levels indicated.

| | | | |
|--|------------------|-------------------------|--|
| SLM instruction manual title SVAN 971 User Manual | | | |
| SLM instruction manual ref / issue Rev 3.1 | | | |
| Date provided or internet download date | | 01 February 2021 | Source Svantek |
| | Case Corrections | Wind Shield Corrections | Mic Pressure to Free Field Corrections |
| Uncertainties provided | Yes | Yes | Yes |
| Total expanded uncertainties within the requirements of IEC 61672-1:2013 | | | YES |
| Specified or equivalent Calibrator | Equivalent | | |
| Customer or Lab Calibrator | Lab Calibrator | | |
| Calibrator adaptor type if applicable | UC 0210 | | |
| Calibrator cal. date | 30 April 2024 | | |
| Calibrator cert. number | UCRT24/1663 | | |
| Calibrator cal cert issued by Lab | 0653 | | |
| Calibrator SPL @ STP | 94.09 | dB | Calibration reference sound pressure level |
| Calibrator frequency | 999.83 | Hz | Calibration check frequency |
| Reference level range | Low | dB | |
| Accessories used or corrected for during calibration - Wind Shield SA 22 | | | |

| | | | |
|---------------------------------------|--------|--------|------------|
| Environmental conditions during tests | Start | End | |
| Temperature | 23.60 | 23.75 | ± 0.30 °C |
| Humidity | 47.9 | 51.9 | ± 3.00 %RH |
| Ambient Pressure | 100.31 | 100.35 | ± 0.03 kPa |

| | | |
|--|---------------------------------------|------|
| Indication at the Calibration Check Frequency | Calibration carried out using channel | N/A |
| Initial indicated level | 93.7 | dB |
| | Adjusted indicated level | 93.9 |
| | | dB |
| Uncertainty of calibrator used for Indication at the Calibration Check Frequency ± | 0.10 | dB |

| | | | |
|--|-------------------------------|-----------|------------|
| Self Generated Noise | | | |
| Microphone installed - | Less Than 16.4 dB A Weighting | | |
| Microphone replaced with electrical input device - | UR = Under Range indicated | | |
| Weighting | A | C | Z |
| | 7.3 dB UR | 7.0 dB UR | 12.3 dB UR |

Self Generated Noise reported for information only and not used to assess conformance to a requirement

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.

Additional Comments The results on this certificate only relate to the items calibrated as identified above.

Electrical test completed with a Cal Factor of 1.62 dB