PRICEINED. OR OOK OR



APPENDIX 12-2

Copies of Calibration Certificates



CERTIFICATE OF CALIBRATION





0653

Date of Issue: 21 March 2024

Calibrated at & Certificate issued by:

ANV Measurement Systems

Beaufort Court 17 Roebuck Way Milton Keynes MK5 8HL

Telephone 01908 642846 Fax 01908 642814

E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk

Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

				•	ري ح
Page	1	of	2	Pages	00
Approved Signator	у		/		120
				. /	
		KA	VA	wit	
K. Mistry					

Certificate Number: UCRT24/147

Customer

AWN Consulting

The Tecpro Building

IDA Business and Technology Park

Clonshaugh Dublin 17 D17 XD90 Ireland

Order No.

2365

Description

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

Identification

Manufacturer Type Serial No. / Version Instrument NL-52 00164426 Rion Sound Level Meter Rion **Firmware** 2.0 Rion Pre Amplifier NH-25 54559 Microphone UC-59 09207 Rion Brüel & Kjær 4231 2022651 Calibrator

Calibrator adaptor type if applicable

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

If YES above there is public evidence that the SLM has successfully completed the

applicable pattern evaluation tests of IEC 61672-2:2013

Yes

Date Received

20 March 2024

ANV Job No.

UKAS24/03253

UC 0210

Date Calibrated

21 March 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

04 November 2021

UCRT21/2362

0653

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

CERTIFICATE OF CALIBRATION

Certificate Number UCRT24/1471

UKAS Accredited Calibration Laboratory No. 0653

Page 2 of 2 Pages

Sound Level Meter Inst	ruction manual an	d data used to adi	ust the	sound leve	ls indicat	ed		
SLM instruction manual tit		Description for IEC				\ //		
SLM instruction manual re		No. 56034 21-0		Source	Rion			
Date provided or internet of	download date	19 March 202	1			,0	•	
	Case Corrections	Wind Shield Corre		Mic Press	sure to Fr	ee Field Co	rectio	าร
Uncertainties provided	Yes	Yes				es	0	_
Total expanded uncertaint	ties within the require	ements of IEC 6167	2-1:20 ⁻	13 YES				3
Specified or equivalent Ca		Equivalent		•				50
Customer or Lab Calibrate		Customers Calibr	ator					7
Calibrator adaptor type if a	applicable	UC 0210						
Calibrator cal. date	4							
Calibrator cert. number		UCRT24/146	7					
Calibrator cal cert issued I	by Lab	0653						
Calibrator SPL @ STP		94.01	dB	Calibration re	eference s	sound press	sure lev	/el
Calibrator frequency		999.82	Hz	Calibration c			501010	
Reference level range		Single	dB	Calibration C	neck neq	uericy		
Accessories used or corre	ected for during calib			able & Wind S	Shield WS	-15		
Note - The Extension Cab						-10		
Environmental conditions		Start	io am	End	Tation.			
	Temperature	23.16		22.76	± 0.	.30 °C		
	Humidity	56.4		55.9		.00 %RH		
	Ambient Pressure	101.38		101.36		.03 kPa		
Indication at the Calibration				10 1.00	<u> </u>	.03 KFa		
Initial indicated level			otod in	diagted lavel		4.0	4D	
Uncertainty of calibrator u				dicated level			dB dB	
Self Generated Noise	Sed for indication at	the Calibration Che	CKTIE	quericy ±	0	. 10	ub	
Microphone installed -	Less Than 18	3.8 dB A Weig	hting	1				
Microphone replaced with				I Range indica	tod			
		C C	Officer		z Z			
Weighting	A 2.3 IdB IUR	15.6 dB	UR	21.5	db luf	-		
Self Generated Noise repo								
Sell Generated Noise repo	orted for inflormation	only and not used t	U asse	ss comorman	ice to a re	quirement		
The reported expanded un	ncertainty is based o	on a standard uncert	ainty m	aultiplied by a	coverage	factor k=2	provi	dina
a coverage probability of a								
UKAS requirements.	approximately 5570.	The uncertainty eve	aluatioi	Thas been ce	irried out	iii accordai	ice witi	
•	The results as dire	aantifiaata aa laada	. Ac al					
Additional Comments	ine results on this	certificate only relate	e to the	e items calibra	ated as ide	entified abo	ve.	
N								
None								

END

Calibrated by:

K. Zablocki

R 1



CERTIFICATE OF CALIBRATION





0653

Date of Issue: 13 June 2023

Calibrated at & Certificate issued by:

ANV Measurement Systems

Beaufort Court 17 Roebuck Way

Milton Keynes MK5 8HL

Telephone 01908 642846 Fax 01908 642814

E-Mail: info@noise-and-vibration.co.uk Web: www.noise-and-vibration.co.uk

Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Page	1	of	2	Pages	0
Approved Signatory	/	,	1		120
		//	/	//	- A
		//		1/1	ľ
		FN	MA	7	•
K. Mistry					

Certificate Number: UCRT23/177

Customer

AWN Consulting Limited

The Tecpro Building

IDA Business and Technology Park

Clonshaugh Dublin D17 XD90 Ireland

Order No.

AWN200423

Description

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

Identification

Type Manufacturer Instrument Serial No. / Version Rion Sound Level Meter NL-52 00186668 Rion **Firmware** 2.1 Pre Amplifier NH-25 76701 Rion UC-59 12813 Microphone Rion NC-74 34536109 Rion Calibrator Calibrator adaptor type if applicable NC-74-002

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

13 June 2023

ANV Job No.

UKAS23/06399

Date Calibrated

13 June 2023

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

03 May 2022

UCRT22/1600

0653

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

CERTIFICATE OF CALIBRATION

Certificate Number UCRT23/1774

UKAS Accredited Calibration Laboratory No. 0653

Page 2 of 2 Pages

Sound Level Meter Instruction manual and data used to adjust the sound levels indicated											
SLM instruction manual title NL-52/NL-42 Description for IEC 61672-1											
SLM instruction manual ref / issue No. 56034 21-03 Source Rion											
Date provided or internet download date 19 March 2021						<i>•</i>	0				
	Case Correction	ns Win	d Shield	Corre	ctions	Mic Press	sure to	Free Fi	eld Co	rectic	ns
Uncertainties provided	Yes		Ye					Yes		0	20.
Total expanded uncertainties within the requirements of IEC 61672-1:201					13 YES					2	
Specified or equivalent Ca	librator		Spec	ified			- "				.0-
Customer or Lab Calibrate			Lab Ca		r						`(
Calibrator adaptor type if a	applicable		NC-7	4-002							
Calibrator cal. date			30 Mag	y 2023							
Calibrator cert. number			UCRT2	3/172	7						
Calibrator cal cert issued b	oy Lab		06	53							
Calibrator SPL @ STP			94.02		dB	Calibration re	eferenc	e soun	d pres	sure le	vel
Calibrator frequency 1001.99 Hz			Hz	Calibration cl	heck fr	equenc	y				
Reference level range Single dB				dB							
Accessories used or corrected for during calibration - Extension Cable & Wind Shield WS-15											
Note - The Extension Cab	le was used betw	een the	SLM an	d the p	re-am	p for this calib	oration.				
Environmental conditions	during tests		Start			End					
	Temperature		24.08			24.03	±	0.30	°C		
	Humidity		41.0			35.8	±	3.00	%RH		
	Ambient Pressur	е	100.41			100.43	±	0.03	kPa		
Indication at the Calibratio	n Check Frequer	су									
Initial indicated level	94.0	dB		Adju	isted in	dicated level		94.0		dB	
Uncertainty of calibrator us	sed for Indication	at the C	alibratio	n Che	ck Fred	quency ±		0.10		dB	
Self Generated Noise											×
Microphone installed -	Less Than	19.2	dB A	\ Weig	hting			_			
Microphone replaced with	electrical input de	evice -		UR =	Under	Range indica	ted				
Weighting	Α					2	Z				
	1.5 dB UR			dB	UR	22.0	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.

Prior to calibration the instrument's main PCB was replaced and the meter was realigned.

	END	
Calibrated by 1/ Zablaski		-



CERTIFICATE **CALIBRATION**





0653

Date of Issue: 20 February 2024

Calibrated at & Certificate issued by:

ANV Measurement Systems

Beaufort Court 17 Roebuck Way

Milton Keynes MK5 8HL

Telephone 01908 642846 Fax 01908 642814

E-Mail: info@noise-and-vibration.co.uk Web: www.noise-and-vibration.co.uk

Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Page Pages of Approved Signatory

Certificate Number: UCRT24/1283

Customer

AWN Consulting Limited

The Tecpro Building

IDA Business and Technology Park

Clonshaugh Dublin D17 XD90 Ireland

Order No.

2358

Description

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

K. Mistry

Identification

Manufacturer Rion

Instrument

Type

Serial No. / Version

Sound Level Meter

NL-52

00998409

Rion

Firmware

2.0

Rion

Pre Amplifier Microphone

NH-25 UC-59 98623

Rion

4231

15915

Brüel & Kiær

Calibrator Calibrator adaptor type if applicable 2263026 UC 0210

Performance Class

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

If YES above there is public evidence that the SLM has successfully completed the

applicable pattern evaluation tests of IEC 61672-2:2013

Yes

Date Received

19 February 2024

ANV Job No.

UKAS24/02147

Date Calibrated

20 February 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 patternevaluation 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

01 February 2022

UCRT22/1142

0653

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

CERTIFICATE OF CALIBRATION

UKAS Accredited Calibration Laboratory No. 0653

Additional Comments

None

Certificate Number UCRT24/1283

Page 2 of 2 Pages

						2			
Sound Level Meter Inst					ls indi	cated.			
SLM instruction manual tit		Description for IEC	61672	2-1			11-		
SLM instruction manual ref / issue No. 56034 21-03 Source Rion									
Date provided or internet download date 19 March 2021									
	Case Corrections	Wind Shield Corre	ctions	Mic Press	sure to	Free F	ield Co	preotic	ons
Uncertainties provided	Yes	Yes				Yes		0	0
Total expanded uncertaint			2-1:20	13 YES					12
Specified or equivalent Ca		Equivalent							, O-
Customer or Lab Calibrate		Customers Calib	rator						`
Calibrator adaptor type if applicable UC 0210									
Calibrator cal. date		20 February 20							
Calibrator cert. number		UCRT24/127	4						
Calibrator cal cert issued I	by Lab	0653							
Calibrator SPL @ STP		93.95	dB	Calibration re	eferenc	ce sour	nd pres	sure le	vel
Calibrator frequency		999.97	Hz	Calibration cl	heck fr	equen	су		
Reference level range		Single	dB						
Accessories used or corre				able & Wind S					
Note - The Extension Cab		n the SLM and the p	re-am	p for this calib	ration				
Environmental conditions	during tests	Start		End					
	Temperature	22.58		22.72	±	0.30	°C		
	Humidity	48.3		53.9	±	3.00	%RH		
	Ambient Pressure	101.11		101.10	±	0.03	kPa		
Indication at the Calibration	n Check Frequency								
Initial indicated level	94.2	dB Adju	isted in	dicated level		93.9		dB	
Uncertainty of calibrator u	sed for Indication at	the Calibration Che	ck Fred	quency ±		0.10		dB	
Self Generated Noise				_					ÿ
Microphone installed -	Less Than 18	3.1 dB A Weig	hting			_			
Microphone replaced with	electrical input devi	ce - UR =	Under	Range indicat	ted				
Weighting	Α	С		Z	7_				
The state of the s	l.9 dB UR	15.0 dB	UR		dB	UR			
Self Generated Noise repo	orted for information	only and not used t	o asse	ss conforman	ce to a	requir	ement		
The reported expanded ur	ncertainty is based o	n a standard uncort	ainty m	ultiplied by a	cover	age for	tor k-0) provi	idina
a coverage probability of a	noproximately 95%	The uncertainty eve	alluation	has been ca	rried a	aye iac	cordar	., provi	uirig h
UKAS requirements.	TEP. Oximicatory 00 /0.	o dilocitality eve	a.uuui01	i nas been ca	11100 0	ut iii at	Journal	ICC WILL	

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