

CERTIFICATE OF CALIBRATION

Issued By Airflow Measurements Ltd

Date of Issue 09 February 2024

Certificate Number 21756



0690



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Approved Signatory

A Leonard ☐

C Slater ☒

Customer : Airflow Measurements Ltd (Hire)
72-74 Manchester Road, Kearsley
Bolton, BL4 8NZ

Date Received : 22 November 2022

Instrument :	System ID :	D00000272	Job Number :	IR117228
	Description :	Rotating Vane Anemometer		
	Manufacturer :	TSI		
	Model Number :	LCA301		
	Serial Number :	0253388		
	Procedure Number & Version :	1433 : .25-30ms/N		

Environmental Conditions

Temperature :	20°C ± 2°C	Mains Voltage :	240V ± 10V
Relative Humidity :	50%RH ± 10%RH	Mains Frequency :	50Hz ± 1Hz

Comments

Instrument stabilised in a controlled environment 19.0°C, 60%RH, 961.7mBar
Instrument head set 150mm from wind tunnel mouth in line with flow
Temperature is not UKAS accredited but added for completeness
Readings given are for the average of at least 5 stable consecutive measurements
The actual velocity readings are at the calibration conditions as reported

Calibration Information

The instrument was calibrated against laboratory standards whose values are traceable to recognised National Standards. The uncertainty limits quoted refer to the measured values only, with no account being taken of the instruments ability to maintain its calibration.

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

Calibrated By : M Nuttall

Date of Calibration : 09 February 2024

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.

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UKAS Accredited Calibration Laboratory No. 0690

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AS FOUND RESULTS

Test Title	Tolerance	Applied Value	Reading
Velocity m/sec			
0.00m/s	0.02m/s	0.00m/s	0.00m/s
0.25m/s	0.023m/s	0.26m/s	0.27m/s
0.50m/s	0.025m/s	0.49m/s	0.50m/s
1.00m/s	0.029m/s	0.95m/s	0.96m/s
5.00m/s	0.066m/s	4.58m/s	4.57m/s
10.00m/s	0.11m/s	9.13m/s	9.09m/s
15.00m/s	0.16m/s	13.68m/s	13.68m/s
20.00m/s	0.2m/s	18.22m/s	18.14m/s
25.00m/s	0.25m/s	22.77m/s	22.76m/s
30.00m/s	0.29m/s	27.32m/s	27.42m/s

Conditions of Test

Temperature °C	1°C	19.0°C	19.6°C
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END OF TEST DATA

Uncertainties

Air Vel 0.1 - 2mps : +/- 0.1% + 0.15m/s plus 1 digit of resolution
Air Vel 2 - 10mps : +/- 0.25% + 0.20m/s plus 1 digit of resolution
Air Vel 10 - 20mps : +/- 0.25% + 0.15m/s plus 1 digit of resolution
Air Vel 20 - 30mps : +/- 0.25% + 0.15m/s plus 1 digit of resolution
Temperature : +/-0.5°C

Ventilation Testing

Rotating Vane Anemometer

Alnor® Model RVA801
AIRFLOW™ Model LCA301

Operation and Service Manual

