

# CERTIFICATE OF CALIBRATION

Issued By Airflow Measurements Ltd

Certificate Number N/37249

Date of Issue 14 April 2021



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Page 1 of 2

Approved Signatory

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**Customer :** Commissioning Validation Solutions Ltd  
34 Thorneycroft, Leigh  
LANCS, WN7 2TH

**Date Received :** 12 April 2021

|                     |                   |                     |                |          |
|---------------------|-------------------|---------------------|----------------|----------|
| <b>Instrument :</b> | System ID :       | A21732414           | Job Number :   | IR111105 |
|                     | Description :     | Rotating Vane Probe | Customer Ref : |          |
|                     | Manufacturer :    | TSI                 |                |          |
|                     | Model Number :    | 955                 |                |          |
|                     | Serial Number :   | P19510050           |                |          |
|                     | Procedure Version | 1/MS/PF             |                |          |

## 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, 1020mBar  
Instrument head set 150mm from wind tunnel mouth in line with marked flow  
Uncertainty is of applied velocity plus resolution of the instrument under test  
Readings given are for the average of at least 5 stable consecutive measurements

## Traceability Information

| Instrument Description               | Serial Number | Certificate Number | Cal. Date  | Cal. Period |
|--------------------------------------|---------------|--------------------|------------|-------------|
| Standard Anemometer Low Vel          | AFM03080      | 17162              | 18/02/2021 | 52          |
| Standard Anemometer High Vel         | AFM0690       | 17159              | 18/02/2021 | 52          |
| F25 Laboratory Precision Thermometer | AFM00100 2756 | 3503010001         | 10/02/2021 | 52          |

Calibrated By : M Nuttall

Date of Calibration 14 April 2021

This certificate provides traceability of measurement to recognised National standards, and to the units of measurements realised at the National Physical Laboratory or other recognised National standards laboratories. Copyright of this certificate is owned by the issuing laboratory and may not be reproduced except with the prior written approval of the issuing laboratory.

This certificate complies with the requirements of BS EN ISO 10012:2003.

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Certificate Number  
N/37249

Page 2 of 2

## AS FOUND RESULTS

| Test Title            | Tolerance | Applied Value | Reading  | Pass / Fail |
|-----------------------|-----------|---------------|----------|-------------|
| <b>Velocity m/sec</b> |           |               |          |             |
| 0m/s                  | 0.03m/s   | 0.00m/s       | 0.00m/s  | PASS        |
| 0.25m/s               | 0.033m/s  | 0.26m/s       | 0.26m/s  | PASS        |
| 0.5m/s                | 0.035m/s  | 0.49m/s       | 0.49m/s  | PASS        |
| 1m/s                  | 0.039m/s  | 0.95m/s       | 0.97m/s  | PASS        |
| 5m/s                  | 0.076m/s  | 4.58m/s       | 4.63m/s  | PASS        |
| 10m/s                 | 0.12m/s   | 9.13m/s       | 9.23m/s  | PASS        |
| 15m/s                 | 0.17m/s   | 13.68m/s      | 13.74m/s | PASS        |
| 20m/s                 | 0.21m/s   | 18.22m/s      | 18.28m/s | PASS        |
| 25m/s                 | 0.26m/s   | 22.77m/s      | 22.94m/s | PASS        |
| 30m/s                 | 0.3m/s    | 27.42m/s      | 27.43m/s | PASS        |

## Conditions of Test

|                |       |        |        |      |
|----------------|-------|--------|--------|------|
| Temperature °C | 1.2°C | 19.0°C | 19.9°C | PASS |
|----------------|-------|--------|--------|------|

## End of Data

END OF TEST DATA

## Uncertainties

Air Vel 0.1 - 1mps : +/- 0.1% + 0.125m/s plus 1 digit of resolution  
Air Vel 1 - 2mps : +/- 0.1% + 0.125m/s plus 1 digit of resolution  
Air Vel 2 - 10mps : +/- 0.25% + 0.15m/s plus 1 digit of resolution  
Air Vel 10 - 30mps : +/- 0.25% + 0.20m/s plus 1 digit of resolution  
Temperature : +/-0.5°C