

# CERTIFICATE OF CALIBRATION

Issued By Pullman Instruments (UK) Ltd.

Certificate Number 1599882

Date of Issue 10 October 2023



[www.pullman.co.uk](http://www.pullman.co.uk)

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Approved Signatory

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**Customer :** VIAMED LTD  
15 STATION ROAD, KEIGHLEY  
CROSS HILLS, WEST YORKSHIRE BS20 7DT

**Date Received :** 10 October 2023

<b>Instrument :</b>	System ID :	4040 2229 009	Job Number :	506084-1
	Description :	Thermal Mass Flow Meter Hi Flow	Ref Number :	40402229009
	Manufacturer :	TSI	Site :	
	Model Number :	4040	Location :	
	Serial Number :	40402229009		
	Procedure Version	4169v1/S		

## Environmental Conditions

Temperature : 20°C ± 2°C  
Relative Humidity : 50%RH ± 15%RH

Mains Voltage : 230V ± 20V  
Mains Frequency : 50Hz ± 1Hz

## Comments

No calibration adjustments or repairs were made to unit.  
Measurements traceable to national standards.  
Unit tested to manufacturers specification.

## Traceability Information

Instrument Description	Serial Number	Certificate Number	Cal. Date	Cal. Period
FCO96-200L CM186 Laminar Element 600	1611213	0580/25589	30/06/2023	104
FC096-E20L CM50 Laminar Element 20lpm	0203181	25456	06/06/2023	52

**Calibrated By : M.Conboy**

**Date of Calibration : 10 October 2023**

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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## AS FOUND RESULTS

Test Title	Tolerance	Applied Value	Reading	Pass / Fail
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### Test Results

Air temperature at time of test:- 20.8C

Air humidity at time of test:- 54%rH

Air pressure at time of test:- 100.9kPa

Test gas used:- Air (corrected for GAS)

### Barometric Pressure

100kPa	1kPa	100.0kPa	100.5kPa	PASS
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### Temperature @ 50lpm

20°C	1°C	20.0°C	20.2°C	PASS
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### Flow

0 l/m	0.05lpm	0.00lpm	0.00lpm	PASS
50 l/m	1lpm	50.00lpm	49.89lpm	PASS
100 l/m	2lpm	100.0lpm	99.4lpm	PASS
200 l/m	4lpm	200.0lpm	198.7lpm	PASS
300 l/m	6lpm	300.0lpm	298.6lpm	PASS

### End of Results

END OF TEST DATA

### Uncertainties

Gen / Meas Pressure : 0.08%Fs (C261) +/-0.05%Fs (C230) +/- 0.075%Fs (C141)

Gas Flow 0-200L/min : ±0.35% fsd

Simulate / Meas Temp : +/-0.05%rdg +/-0.05°C