

**Customer Details****J M W Limited**

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Sprint Pro Calibration and Configuration Report

Report Number	: JMW10002	Printed On	: 11 Feb 2020
Sprint Pro Serial Number	: 3080260109119 (P2)	Calibration Date	: 23 Oct 2019
Service Centre Reference Number	:	Calibration Due Date	: 25 Oct 2020
Overall After Adjustment Result	: PASS		

Calibration Method :

Pressure input was calibrated by means of application of a generated test pressure. Temperature input was calibrated by application of a known voltage converted with reference to thermocouple reference table type K BS4937. Gas sensors were calibrated by application of known gas concentrations. Oxygen, carbon monoxide, and where fitted Nitric oxide were zeroed in fresh air the oxygen reading was set to 20.9 %Vol during the zero process, Carbon Dioxide was zeroed using a 0% Vol Carbon dioxide gas before application of the calibration gas. As received readings are recorded following the instrument zeroing process, before any adjustments or repairs were made.

Temperature							
Range	Applied Temperature	Acceptance Criteria As Received	Indicated Reading As Received	Result	Acceptance Criteria After Adjustment	Indicated Reading After Adjustment	Result
Temperature Input T1	0 °C	±2 °C	0 °C	PASS	±2 °C	0 °C	PASS
	402 °C	±6 °C	403 °C	PASS	±4 °C	403 °C	PASS
Temperature Input T2	0 °C	±2 °C	0 °C	PASS	±2 °C	0 °C	PASS
	402 °C	±6 °C	403 °C	PASS	±4 °C	403 °C	PASS

Pressure							
Range	Applied Pressure	Acceptance Criteria As Received	Indicated Reading As Received	Result	Acceptance Criteria After Adjustment	Indicated Reading After Adjustment	Result
Pressure Reading (+ inlet)	-0.02 mbar	±0.50 mbar	-0.01 mbar	PASS	±0.50 mbar	0.01 mbar	PASS
	113.87 mbar	±1.13 mbar	113.18 mbar	PASS	±1.13 mbar	113.19 mbar	PASS
Pressure Leak Test (+ inlet)	113.87	≤ 0.4 mbar/10secs	0.18	PASS	≤ 0.4 mbar/10secs	0.10	PASS

Gas Calibration							
Range	Applied Concentration	Acceptance Criteria As Received	Indicated Reading As Received	Result	Acceptance Criteria After Adjustment	Indicated Reading After Adjustment	Result
Oxygen	0 %Vol	±0.3 %Vol	3.1 %Vol	FAIL	±0.3 %Vol	0.0 %Vol	PASS
	20.9 %Vol	±0.3 %Vol	20.9 %Vol	PASS	±0.3 %Vol	20.9 %Vol	PASS
Carbon Monoxide	0 ppm	±10 ppm	0 ppm	PASS	±3 ppm	0 ppm	PASS
	99.80 ppm	±10 ppm	97 ppm	PASS	±4 ppm	101 ppm	PASS

Pump Test			
	Acceptance Criteria	As Received	After Service
Flow Rate	>= 0.6 l/m	PASS	PASS
Stall Test	Pump Stalls	N/A	FAIL

Instrument Information		
	As Received	After Service
Firmware	i1.11	i1.13

Gas Cylinder Information			
Cylinder No 1		Cylinder No 2	
Serial Number	EE46CTT	Serial Number	
Lot Number	040007400560	Lot Number	
Expiry Date	27 Mar 2024	Expiry Date	
CO Concentration (ppm)	99.80	NO Concentration (ppm)	
Gas Tolerance	ppm mo ±0.5 %rel	Carbon Dioxide Concentration (%Vol)	
		NO Gas Tolerance	
		CO2 Gas Tolerance	

Approved Signatory	CliffManley	Date :	23 Oct 2019
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Comments :	
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Notes :

- Pressure and Temperature measured results are traceable to national standards via calibration of Sprint Pro Calibration Jig :

Serial Number : 1D1F6E1

Calibration Certificate Number : 230

Calibration Due Date 18 Sep 2020

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- Gas sensor measured results are traceable to national standards via gas cylinder information.

- Sprint Pro must be used in accordance with the instruction manual.

- Measurement uncertainty: ± 0.25 °C, ± 0 %Vol O₂, ± 10 ppm CO, ± 0.25 mbar, +0 LSD

- The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k = 2$, providing a level of confidence of approximately 95%.

- Result Referenced within this report are measurements made at the time of the test only.

- This report must not be replicated in part or whole without written consent of the issuing body.
