


MicroBio Serial Number	010815140
Certificate Number	CC010815140-5

New Sampler	<input type="checkbox"/>
Previous Certificate Suffix	4

General Information

Product Owner	Majaseen LLC	Calibration Date	15 January 2021	Approved Signatory	 S. Plumridge CEng MIET FRSA Director
Address	Ravila 14a-2019 Tartu 50411	Calibration Due	15 January 2022		
Country	Estonia	Calibrated By	SP	PO / Name	Jane Oja
		Distributor		CO/RMA	RMA-00403
		Calibration Methods	qCR Manual, A-00483	Asset Number	

Model / Configuration

Model	MicroBio MB2-HiFlow
Sampler flow rate	180 L/min
Sampling head holes	400 Holes
Sampling head hole diameter	1.0 mm
Plate Fitted	90mm Petri Dish
Recorded Total Volume	75788 Litres
Recorded Total Samples	366

Sampler Calibration Conditions

Target Volumetric Flow	180 L/min
Target Anemometer Velocity	4.99 m/s
Allowed Deviation	5.0 %
Upper Anemometer Velocity	5.24 m/s
Lower Anemometer Velocity	4.74 m/s
Lab Temperature	18.9 °C
Lab Pressure	1026.3 mBar

Inspection

Sampling head	OK
Battery box lid	OK
Battery contact springs	Springs cleaned
Keypad surface / buttons	OK
Plate springs	OK
Head spring	OK
Enclosure	OK
Battery Pack	Customer's cells

qCR Kit Calibration Parameters

Parameter	Value	Units
Calibration Factor	36.04	
Lab temperature	19.50	°C
Lab pressure	1015.4	mbar
Serial number	41426690101	
Calibration date	22 Jul 2020	
Calibration due date	22 Jul 2021	
Certificate number	CC41426690101-1	

Measurements

Reading No.	Inspection	Adjusted	Units
	Target = 4.99 m/s		
1	4.29	4.90	m/s
2	4.32	4.94	m/s
3	4.22	4.89	m/s
4	4.28	4.93	m/s
5	4.27	4.91	m/s
6	4.26	5.03	m/s
7	4.29	4.98	m/s
8	4.26	4.97	m/s
9	4.23	4.93	m/s
10	4.28	4.94	m/s
11	4.12	4.95	m/s
12	4.29	4.96	m/s
Mean Velocity	4.259	4.944	m/s
Std. Deviation	0.0516	0.0382	
Confidence 95%	0.0292	0.0216	
Upper Range	4.29	4.97	m/s
Lower Range	4.23	4.92	m/s
Action Required	INCREASE FLOW RATE	NONE	
Measured Flow Rate	153.50	178.19	L/min
Upper	154.55	178.97	L/min
Lower	152.45	177.41	L/min
d₅₀ (Theoretical)	1.83	1.70	µm
U_j (Theoretical)	8.14	9.45	m/s

Notes

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Inspection Modelling

Q	# holes	Dj	Cc	ETA	stk50	Particle Density	d50 SQRT(Cc)	S ₅₀	d50	Uj	Aj
lpm		mm		g/cm-sec	0.22 circ	g/cm3	µm	mm	µm	m/sec	mm2
153.50	400	1.00	1.28	1.81E-04	0.22	1.03	2.07	0.110	1.83	8.14	0.785

Adjustment Modelling

Q	# holes	Dj	Cc	ETA	stk50	Particle Density	d50 SQRT(Cc)	S ₅₀	d50	Uj	Aj
lpm		mm		g/cm-sec	0.22 circ	g/cm3	µm	mm	µm	m/sec	mm2
178.19	400	1.00	1.28	1.81E-04	0.22	1.03	1.92	0.110	1.70	9.45	0.785