

CALIBRATION CERTIFICATE

Page 1 of 2

EQN/FT/7.8/01			
CRF No. :	EQN/CRF/2305039	Date of Calibration :	08-May-23
Certificate No :	2023-24/EQN/2305039-04	Recom. Due Date :	07-May-24
ULR No. :	CC276023000005963F		

Customer Details:	Calibrated at :	Lab
THE CHIEF MEDICAL OFFICER	Date of Receipt :	08-May-23
Government Primary Health Centre,	Cond. On Receipt :	Satisfactory
ICTC, Singanallur, Corporation of Coimbatore.	Date of Issue :	11-May-23
Coimbatore - 641 005		

Details of UUC :			
Description :	Micropipette	Model No. :	--
Range :	5 - 50µl	Serial No. :	--
Least Count :	1µl	Identification No. :	MP/SINGA/001
Make :	Microlux	Accuracy :	As Per ISO 8655-6
Working Range :	--	Location :	Lab (ICTC)

Details of Standard Used :			
Name	Certificate No.	Valid upto	Traceability
Mass Comparator	2022-23/EQN/2209050-81	14-Sep-23	EQN, Chennai

CP No. :	EQN/CP/MS-03	Reference Standard :	ISO 8655-6
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Environmental Details :	Temperature : 25±2°C	Relative Humidity : 50±10 % RH
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MECHANICAL CALIBRATION

(Volume)

Calibration Results

I. Lower Volume : 5 µl **No. of Measurements :** 10

5.00	5.04	5.01	4.98
5.00	5.01	5.05	5.06
5.03	5.06		

Mean Value : 5.02 µl

Error Limits(±)

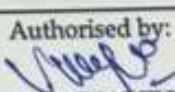
Systematic Error :	0.02	µl	0.13	µl
Systematic Error :	0.48	%	2.50	%
Random Error :	0.02	µl	0.08	µl
Random Error :	0.47	%	1.50	%

Measurement Uncertainty : ± 0.37 µl

Calibrated by:

SANGEERTH K P
 (Calibration Engineer)



Authorised by:

V. RAJKARTHICK
 (QM)

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CRF No. : EQN/CRF/2305039
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MECHANICAL CALIBRATION (Volume)

2. Middle Volume :

25 μ l

No. of Measurements : 10

25.10	25.11	25.04	25.09
25.12	25.07	25.11	25.15
25.11	25.09		

Mean Value : 25.10 μ l

Error Limits(\pm)

Systematic Error :	0.10	μ l	0.20	μ l
Systematic Error :	0.40	%	1.00	%
Random Error :	0.03	μ l	0.10	μ l
Random Error :	0.12	%	0.50	%

Measurement Uncertainty : \pm 0.37 μ l

3. Nominal Volume :

50 μ l

No. of Measurements : 10

50.20	50.24	50.26	50.17
50.19	50.26	50.29	50.28
50.27	50.24		

Mean Value : 50.24 μ l

Error Limits(\pm)

Systematic Error :	0.24	μ l	0.50	μ l
Systematic Error :	0.48	%	1.00	%
Random Error :	0.04	μ l	0.20	μ l
Random Error :	0.08	%	0.40	%

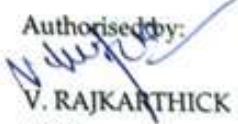
Measurement Uncertainty : \pm 0.37 μ l

Remarks

1. The reported Expanded Uncertainty is calculated at 95% C.L. with coverage factor $k=2$
2. The Above Results are within the maximum permissible Error

Calibrated by: 
SANGEERTH K P
 (Calibration Engineer)



Authorised by: 
V. RAJKATHICK
 (QM)

EQUATION CALIBRATION SERVICES PRIVATE LIMITED



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CALIBRATION REPORT

Report No : HBMS/CAL/23-24		Calibration Date: 26.09.2023
		Calibration Valid: 25.03.2024
I.1.CUSTOMER DETAILS:		
Name and Address of the organization		M/S. CORPORATION HOSPITAL, UPHC, SINGANALLUR , COIMBATORE.
I.2. DESCRIPTION OF DEVICE UNDER TEST (DUT):		
EQUIPMENT NAME		MICRO PIPETTE
i	Manufactured by	THERMO SCIENTIFIC
ii	Model	FINEPIPTTE – F3
iii	Value	100 µl -1000 µl
iv	Serial No	PW02569

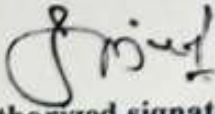
Calibration standards used :

Master instrument	Model	Serial no	Date of calibration	Calibration due on
Electrical compact scale	SF-400C	SF400-2240	07-OCT-2022	06-OCT-2023

Calibration test Report

Number of measurement	Channel 1 (Volume)		
	10µl	50µl	100µl
1	100.02	500.06	1000.09
2	100.04	500.04	1000.08
3	100.05	500.02	1000.06
4	100.02	500.02	1000.08
5	100.01	500.02	1000.09
6	100.03	500.07	1000.7

For Heart Beat Medical Systems,


(Authorized signatory)



No: TN/CBE/MD42/00016

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