



# UNIQUE CALIBRATION SOLUTIONS LLP

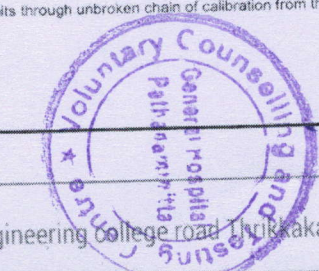
An ISO/IEC-17025:2017 / ACCREDITED BY NABL

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CALIBRATION CERTIFICATE											
ULR NO	CC310223000000136F					CERTIFICATE No.	UCSL/01-23/008_06				
Customer Name & Address: M/s. ICTC GENERAL HOSPITAL PATHANAMTHITTA, KERALA - 689 645						Instrument receipt Date	12.01.2023				
						SRF No.	008				
						Calibration Date	14.01.2023				
						Next calibration due (As per customer request)	14.01.2024				
						Certificate Issue date	18.01.2023				
Identification on DUC (Device Under Calibration)											
Equipment Name	MICROPIPETTE					Make	DR. PETTE				
Range	10-100 µl					Model	---				
Least count	1 µl					Instrument Condition	OK				
Serial No.	0310125					Calibration Performed at	Mass & Volume Lab				
ID No.	MP-01					Location	---				
Environmental Condition			Avg. Temperature (°C)			Avg. RH (%)			Avg. Atmospheric Pressure (hpa)		
			23.7			52			1010		
Equipment & Master Used For calibration											
Instrument Used	Calibrated By	ID No:	Certificate No	Valid Upto	Sr No.	Accreditation No					
Weighing Balance	UCSL	UCSL-WB-01	UCSL/10-23/329_01	18.10.2023	0037905909	CC-3102					
Method Used :						Discipline & Category					
Gravimetric method						Mechanical - Volume					
Calibration Reference Standard						Calibration Procedure					
ISO-8655-6 & ISO /TR 20461						UCSL/SOP/01-MPT					
CALIBRATION RESULTS @27°C :-											
1. Lower Volume 10 µl											Mean Volume V
1	2	3	4	5	6	7	8	9	10		9.89
9.84	9.96	9.85	9.86	9.79	9.94	9.86	9.87	9.96	9.89		9.89
Systematic Error es µl :				0.11		Error Limits (± 0.8 µl)		Random Error in sr µl :		0.06	
Systematic Error es in % :				1.15		(± 8.0 %)		Random Error in Cv in % :		0.57	
2. Middle Volume 50 µl											Mean Volume V
1	2	3	4	5	6	7	8	9	10		50.10
50.00	50.04	50.07	49.99	50.21	50.15	50.20	50.00	50.17	50.12		50.10
Systematic Error es µl :				-0.10		Error Limits (± 0.8 µl)		Random Error in sr µl :		0.09	
Systematic Error es in % :				-0.19		(± 1.6 %)		Random Error in Cv in % :		0.17	
3. Nominal Volume 100 µl											Mean Volume V
1	2	3	4	5	6	7	8	9	10		100.38
100.29	100.22	100.43	100.26	100.33	100.29	100.58	100.68	100.35	100.35		100.38
Systematic Error es µl :				-0.38		Error Limits (± 0.8 µl)		Random Error in sr µl :		0.15	
Systematic Error es in % :				-0.38		(± 0.8 %)		Random Error in Cv in % :		0.15	
Decision Rule is Applied or Not										Yes	No
											✓
Conclusion /Remarks:											
The Reported Uncertainty from 10 µl to 100 µl is 0.32µl at .Coverage Factor K=2, which corresponds to a confidence level at approximately 95 %											
1. The calibration results reported in this certificate are valid at the time of and the stated condition of measurement.											
2. This report is valid for Scientific & Industrial Purpose Only											
3. This report should not be reproduced except in full without our prior permission in writing.											
4. Calibration certificate without signature are not valid.											
5. This Calibration Certificate relates only to the above DUC											
6. All the measurements are traceable to SI units through unbroken chain of calibration from the competent laboratories as per ISO/IEC 17025 standard requirements.											
7. DUC : Device under calibration											
Calibrated by						Issued / Approved By (APPU K MANI) Technical Director					



14/2/23