
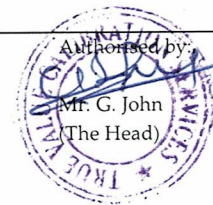




CERTIFICATE OF CALIBRATION

FT-Q-25		Page 1 of 2	
ULR No.	: CC293721000000025F	Date of Issue	: 18-Jan-21
Certificate No	: TVCS 21/01/010 - 02	Recom. Due Date	: 12-Jan-22
Date of Calibration	: 13-Jan-21	SRF No.	: 010
Customer Details		Calibrated at	: Lab
M/s. LIFE CARE		Date of Receipt	: 13-Jan-21
Diagnostic Centre & Reference Laboratory		Cond. On Receipt	: Satisfactory
#5, Siddha Veerappa Chetty Street,			
Opp. Rajagopal Gounder Park, Dharmapuri - 636701.			
Details of Test Instrument:			
Description	: Micropipette	Model	: --
Range	: 100 - 1000 μ L	Serial No	: MJ428340
Least Count	: 5 μ L	Identification No.	: --
Make	: Flexipet	Accuracy	: As per Manual
Working range :	: --	Location	: Lab
Details of Standard Used			
Name	Certificate No.	Valid upto	Traceability
Electronic SemiMicro Balance	TVCSPL 20/05/364 - 01	12-May-21	TVCSPL, Chennai.
Work Instruction	: WI-M-03	Reference Standard	ISO 8655-6
Environmental Details	: Temperature : 25 \pm 2 $^{\circ}$ C	Relative Humidity	: 50 \pm 10 % RH
MECHANICAL CALIBRATION			
(Volume)			
Calibration Results			
1. Lower Volume :	100 μ L	No. of Measurements :	10
100.13	100.08	100.12	100.25
100.18	100.23	100.17	100.22
100.20	100.24		
Mean Value :	100.18 μ L		
Error Limits(\pm)			
Systematic Error :	0.18 μ L	0.80 μ L	
Systematic Error :	0.18 %	0.80 %	
Random Error :	0.06 μ L	0.30 μ L	
Random Error :	0.06 %	0.30 %	
Measurement Uncertainty :	\pm	0.14 μ L	

Calibrated by :

 Ms. S. Manikala
 (Calibration Engineer)



...redefining the true value



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Certificate No : TVCS 21/01/010 - 02

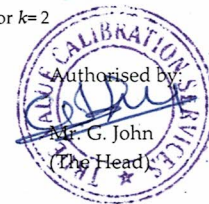
MECHANICAL CALIBRATION				
(Volume)				
Calibration Results				
2. Middle Volume :	500	μL	No. of Measurements :	10
	500.32	500.06	500.13	500.54
	500.19	500.18	500.22	500.06
	500.50	500.29		
Mean Value :	500.25	μL		
Error Limits(±)				
Systematic Error :	0.25	μL	4.00	μL
Systematic Error :	0.05	%	0.80	%
Random Error :	0.17	μL	1.50	μL
Random Error :	0.03	%	0.30	%
Measurement Uncertainty :		±	1.1 μL	
3. Nominal Volume :	1000	μL	No. of Measurements :	10
	1000.22	1000.27	999.50	1000.27
	999.54	999.84	999.91	999.51
	1000.05	999.88		
Mean Value :	999.90	μL		
Error Limits(±)				
Systematic Error :	-0.10	μL	8.00	μL
Systematic Error :	-0.01	%	0.80	%
Random Error :	0.31	μL	3.00	μL
Random Error :	0.03	%	0.30	%
Measurement Uncertainty :		±	1.1 μL	

Remarks

- The reported Expanded Uncertainty is calculated at 95.45 % C.L with coverage factor $k=2$
- The Above Results are within the maximum permissible Error

Calibrated by :

S. Manika
Ms. S. Manikala
(Calibration Engineer)



...redefining the true value