



YEA

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YOUNG ENGG. & CALIBRATION SERVICES PVT. LTD.

Admn. Office & Lab : 44, Shahid Khudiram Bose Sarani, (formerly Kamardanga Road), Ichapur, Howrah - 711 104

E-mail : calibration@yeagroup.org ★ Visit us at : www.yeagroup.org

CIN : U74140WB2005PTC106389 ★ Toll Free Help Desk : 1800 345 9001

Calibration Certificate

Certificate No.: YEA(C)/ 220620A/S3087/009

Dated : 22.06.2022

ULR No. : CC222122000029127F

Calibrated for : **Sanguine Diagnostics**

H - I/10, Durga Bhawan, VIP Road, Joramandir,

Baguiati (Near Calcutta Public School), Kolkata - 700159.

Calibrated on.	Next Calibration Due On.	Page No.	No. of Pages
21.06.2022	21.06.2023	1	3

Description of Instrument

Name : Micro Pipette
Identification : Sl. No. : YL21CAM0003884
Range : 100 - 1000 µl
Least Count : 5 µl
Make : Abdos



CC-2221

Service Request No. / Order Reference : 220620A/S3087/001-010

Receipt of Instrument : 20.06.2022

Location where calibration performed : At permanent laboratory

Applicable Specification of Instrument to be Calibrated : Not Specified

Condition of Instrument to be Calibrated : Satisfactory

Basis of Calibration : Comparison method with reference to YEA/WI/M-47

Environmental Condition during Calibration : *Temp.* : (23±2)°C *RH* : (50±10)%

Equipment used for Calibration : Standard Electronic Balance & Distilled Water

Traceability : To National Standard vide Certificate No:
YEA(C)/210911/Y001/001 valid till 10.09.2022
YEA(C)/210723/Y001/003 valid till 22.07.2022

Measurement Uncertainty : The figures are stated in the result at coverage factor
 $k = 2$ corresponding to confidence probability of
95% for normal distribution.

Laboratory Identification : Sticker is affixed for authentication of calibration.

The above Instrument/Equipment/Machine has been calibrated up to its range.

The results are given in the page 2 to 3 ...of the Certificate.

Com.....2

YEA(C)/F-08



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Page 2 of 3 Pages

Calibrated By : M. Gayan

Calibration Results

Mechanical Calibration

A) Calibration Result of Micro Pipette :

Sl. No.	DUC Value	Standard Value	Mean Value	Systematic Error (es)	Random Error (cv)	Measurement Uncertainty
	(μ l)	(μ l)	(μ l)	(μ l)	(μ l)	($\pm \mu$ l)
1	100	100.794	100.776	-0.776	0.018	0.014
2		100.763				
3		100.760				
4		100.762				
5		100.772		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu$ l)		
6		100.776				
7		100.756				
8		100.814		0.800	0.300	
9		100.776				
10		100.790				

Sl. No.	DUC Value	Standard Value	Mean Value	Systematic Error (es)	Random Error (cv)	Measurement Uncertainty
	(μ l)	(μ l)	(μ l)	(μ l)	(μ l)	($\pm \mu$ l)
1	500	500.99	501.33	-1.33	0.23	0.322
2		501.62				
3		501.48				
4		501.27				
5		501.62		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu$ l)		
6		500.99				
7		501.47				
8		501.37		4.00	1.50	
9		501.34				
10		501.12				

cont....3



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Page 3 of 3 Pages

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Sl. No.	DUC Value	Standard Value	Mean Value	Systematic Error (es)	Random Error (cv)	Measurement Uncertainty
	(μl)	(μl)	(μl)	(μl)	(μl)	($\pm \mu\text{l}$)
1	1000	999.75	1000.06	-0.06	0.30	0.345
2		1000.37				
3		999.94				
4		1000.24		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu\text{l}$)		
5		999.75				
6		1000.10				
7		999.64				
8		1000.54		8.00	3.00	
9		999.97				
10		1000.34				

DUC : Device Under Calibration

REMARKS : The above Micro Pipette has been calibrated and the readings are tabulated above.

NOTES : This certificate refers to the results tabulated at the time of calibration only for the above mentioned item submitted for calibration and this should not be reproduced, other than in full except with prior written approval from the head of calibration laboratory.

Authorised By



A. Das

Manager Calibration

*** End of the Calibration Certificate ***

