



YEA

YOUNG ENGG. & CALIBRATION SERVICES PVT. LTD.

☎ : 033 2677 1412, 2667 1909, 82329 85881

Tele Fax : 033 2677 1411

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)/ 220630A/N573/005

Dated : 01.07.2022

ULR No. : CC222122000031112F

Calibrated for : North District Hospital
Mapusa Jamatkhana Road,
Peddem, Mapusa, Goa - 403507.

Calibrated on.	Next Calibration Due On.	Page No.	No. of Pages
01.07.2022	01.07.2023	1	3

Description of Instrument

Name : Micro Pipette
 Identification : Sl. No. : SW22765
 Range : 10 - 100 µl
 Least Count : 0.2 µl
 Make : Thermo Scientific
 Model : Finnipette F2

Service Request No. / Order Reference : 220630A/N573/001-018

Receipt of Instrument : 30.06.2022

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

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.

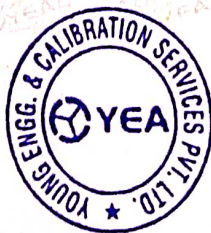
The results are given in the page 2 to 3 ...of the certificate.



CC-2221

Cont. 2

YEA(C)/F-08





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Date: 01.07.2022

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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	10.0	10.019	10.014	-0.014	0.032	0.023
2		10.040				
3		10.008				
4		10.000				
5		10.049		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu$ l)		
6		9.963				
7		9.971				
8		10.038				
9		10.055		0.120	0.080	
10		9.998				

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	50.0	50.069	50.032	-0.032	0.032	0.023
2		50.003				
3		50.032				
4		50.078				
5		50.040		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu$ l)		
6		49.991				
7		50.014				
8		50.072				
9		50.002		0.500	0.200	
10		50.015				

cont. 3





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Sl. No.	DUC Value	Standard Value	Mean Value	Systematic Error (es)	Random Error (ev)	Measurement Uncertainty
	(μ l)	(μ l)	(μ l)	(μ l)	(μ l)	($\pm \mu$ l)
1	100.0	100.117	100.106	-0.106	0.019	0.014
2		100.125				
3		100.080				
4		100.083				
5		100.098		Standard Limit Value as Per ISO 8655 - 2 : 2002 ($\pm \mu$ l)		
6		100.110				
7		100.083		0.800	0.300	
8		100.119				
9		100.130				
10		100.113				

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 ***