

TMSCC

TESTING MACHINE SERVICE AND CALIBRATION CENTRE
Precision is Our Destination......



An ISO 9001: 2015 Certified company

Calibration of Various Instruments & Testing Machines...



	,		Form No	o.: TM	ASCC/F	8/23						
			CALIBRATIC				CATE					
CALI	BRAT	TION CERTIFICATE NO.:							Page 1 of 2			
ISSUE		TE:	26-May-2022	FMSCC-1124-22-23 Page 1 of 2								
ULR	No.:		CC312522000002178F									
1.0	ISSU	ED TO:	M/s.: ICTC, MCH									
			88, College Street, Kolk	88, College Street, Kolkata - 700 073								
		ce Request Form No.:	SRF/22-23/05/042									
		ce Request Date:	02-05-2022		***************************************							
1.3	1.3 Location: At Lab											
	Description identification of item to be calibrated:											
	<u>į</u>	Name:	Micro Pipette	***************************************	ü	Make:		Microlit				
1.4	<u>iii</u>	Model / Type No.:	Fixed		iv	S/L No.: 20105656			M			
	<u>v</u>	I.D.No.:			vi	Job Code No: 22-23/1124		22-23/1124				
	<u>vii</u>	Range:	100 μ1		viii	Resolution:						
	<u>ix</u>	Accuracy	As Per ISO 8655-6		x	End User:						
<u>1.5</u>												
1.6	Appl	icable specification of item	to be calibrated: Accuracy / per	missi	ble limit	i:	Not Spec	cified.				
1.7 Date of receipt of item:			24-May-2022	1.8	B Date of calibration:			24-May-2022				
1.9	Calib	oration due on:	24-May-2023	2.0	Frequency of calibration once in:			365	Days			
2.1	Livinoinnentai condition during		Temperature:	perature: $25^{\circ}\text{C} \pm 4^{\circ}\text{C}$								
2.1			Humidity:	idity: $(50 \pm 10)\%$ RH								
2.2	2.2 Basis of calibration: SOP/04/02											
1.9 2.1 2.2	Calib Envir calib	oration due on: ronmental condition during ration s of calibration:	24-May-2023 Temperature: Humidity:	2.0 25°C (50 ±	Freque 2 ± 4°C = 10)% I	ncy of ca	libration o					

- 1. The above Instrument has been calibrated over its range and the results are tabulated from page 2 of report.
- 2. The Calibration Certificates relates only to the above DUC & reported results are valid at the time of and under the stated conditions of measurments.
- 3. Errors if any, in this certificate shall be brought to notice within 45 days from the date of this certificate.
- 4. NABL-133 guidelines are adopted for use of NABL symbol.
- 5. This certificate shall not be reproduced, except in full, without the written permission of TMSCC
- 6. Corrections/erasing, invalidate the Calibration Certificate- exception to the 'Final Page or Part of this Report- provided for incorporation of additional data(To be filled by customer authorized signatory and not under calibration laboratory control).
- 7. Laboratory Standards are traceable to National Standards
- 8. In Result Sheets, 'Pass' indicates measured readings are within specification limit, 'Fail' Indicates measured readings are out of specification limit &' -' indicates no specification limit furnished.

2.3	Traceability: Standards used for calibration are traceable to National Standards through NABL accredited Laboratory.									
	Name of the Instrument	Sl. No./ Id No.	Certificate No.	Lab Certificate No.	Calibrated On					

Name of the Instrument	Sl. No./ Id No.	Certificate No.	Lab Certificate No.	Calibrated On	Due On
Digital Weighing Balance	(TMSCC/EB/01) (Sl. No 14255716)	TSC/21-22/11157-1	CC 2221	15-11-2021	15-11-2022
Digital Temperature Indicator with Sensor(RTD)	Sl. No 18K588073 (Sensor Sl. No 19102403)	TSC/20-21/7842-36	CC-2231	24-11-2020	24-11-2022



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CC - 3125

Form No.: TMSCC/R/23

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Date: 26-05-2022

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CALIBRATION RESULTS

Recorded Temperature: 20.1°C

Sl. No.	Denomination Volume in µl	Observed Reading at Ref. Std. Balance in g (Avg. of five readings)	Density of De-ionized Water in g/ml	Actual volume in µl	Mean reading in µl	Error in µl	MPE in ± µl	Measurement Uncertainty in ± μl	Acceptence Criteria			
1	100	0.09999	0.998183	100.16947	100.15647			1.94	Pass			
2	100	0.09998	0.998183	100.16074					Pass			
3	100	0.09997	0.998183	100.15072		47 0.15647	0.8		Pass			
4	100	0.09998	0.998183	100.16074								Pass
5	100	0.09996	0.998183	100.14070					Pass			

Measurement Uncertainty at 95% confidence level where coverage factor, k=2

Remarks: The above DUC has been calibrated over its above range & the readings observed are tabulated above. The reference standard used is traceable to National Standard.

DUC: Device Under Calibration

Physical status of the Instrument: Ok

Calibrated By:

R. Ghosh
(Calibration Engineer)

Checked By:

S. Chowdhury

(Quality Manager)

Approved By

C. Ghosh

(Technical Director)

END OF CERTIFICATE

