

CALIBRATION CERTIFICATE

Certificate Number :	MED/R/99	Date of issue:	28/Aug/23
ULR No.	CC35352300000099P	Job Order/ CRF No. :	MED/R/99
Calibration Date	26/Aug/23	Calibration Due	25/Aug/24
CUSTOMER INFORMATION		UNIT UNDER CALIBRATION	
Name	Government Primary Health Centre	Description	Micropipette
Address	Anandhapuram Thoothukudi District	Range / Resolution	5-50/ 1µl
		Make	Microlux
		Model	Nil
		Serial No	Nil
Date of Receipt	26-Aug-23	Identification No	ID-02
		Location	lab
ENVIRONMENTAL CONDITION		MASTER EQUIPMENT DETAILS	
Temperature	25 °C	Description	Electronic Weighing Balance
Humidity	55 °C	Certificate No	CC214423000001642F
Air Pressure	1010 mbar	Identification No	MEDEX-01
		Calibration Due	31-04-2024
		Traceability	National Standard

CALIBRATION RESULTS Discipline: Mechanical - Volume

SL No	Nominal Value (µl)	Measured Mean Value (µl)	Systematic Error (µl)	Maximum Permissible Systematic Error ± (µl)	Expanded Uncertainty (±) µl
1	5.0	5.030 @27°C	0.030	0.13	0.02
2	25.0	25.032 @27°C	0.032	0.20	0.30
3	50.0	50.092 @27°C	0.092	0.50	0.30

Random Error 0.027 µl @ 5 µl

Maximum Permissible Random Error ± 0.075µl

Random Error 0.056 µl @ 25 µl

Maximum Permissible Random Error ± 0.1µl

Random Error 0.057 µl @ 50 µl

Maximum Permissible Random Error ± 0.2µl

Note:

- The UUC is calibrated at Lab
- This calibration certificate relates only to the UUC supplied
- Calibration certificate shall not be reproduced, except in full, without written approval of medex labtech solutions
- Results reported are valid at the time and under stated environmental conditions of calibration
- The uncertainty of measurement is expressed at 95.45% confidence level with coverage factor k=2
- This calibration certificate is issued for scientific or industrial purpose only
- Error is evaluated as (Measured Value-Nominal Value)
- Unless Otherwise Specified the Measurement Data Reported is "As Found" -without any adjustment
- Next calibration due as per customer's plan and requirement.
- Decision Rule Required. Yes
- Decision Rule Statement Pass Fail
- The Instrument is working with in the tolerance limit as per the Standard

Calibrated by



VIPIN PR

Calibration Engineer



Authorised By





Jude Joseph Raj

Quality Manager

X/657/28, 2nd Floor, RP Tower, Opp. Chaldean Centre,
Pallikulam Road, Thrissur, Kerala, India - 680001

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CALIBRATION CERTIFICATE

Certificate Number :	MED/R/98	Date of Issue:	28/Aug/23		
ULR No.	CC35352300000098F	Job Order/ CRF No. :	MED/R/98		
Calibration Date	26/Aug/23	Calibration Due	25/Aug/24		
CUSTOMER INFORMATION		UNIT UNDER CALIBRATION			
Name	Government Primary Health Centre	Description	Micropipette		
Address	Anandhapuram Thoothukudi District	Range / Resolution	100-1000/ 0.1µl		
		Make	Thermo Scientific		
		Model	F3		
		Serial No	RW13754		
		Identification No	ID-01		
Date of Receipt	26-Aug-23	Location	lab		
ENVIRONMENTAL CONDITION		MASTER EQUIPMENT DETAILS			
Temperature	25 °C	Description	Electronic Weighing Balance		
Humidity	55 °C	Certificate No	CC214423000001642F		
Air Pressure	1010 mbar	Identification No	MEDEX-01		
		Calibration Due	31-04-2024		
		Traceability	National Standard		
CALIBRATION RESULTS					
Discipline: Mechanical - Volume					
SL No	Nominal Value (µl)	Measured Mean Value (µl)	Systematic Error (µl)	Maximum Permissible Systematic Error ± (µl)	Expanded Uncertainty (±) µl
1	100.0	100.124 @27°C	0.124	0.80	0.30
2	500.0	500.587 @27°C	0.587	4.00	0.55
3	1000.0	1001.065 @27°C	1.065	8.00	0.55
Random Error 0.107 µl @ 100 µl				Maximum Permissible Random Error ± 0.3µl	
Random Error 0.217 µl @ 500 µl				Maximum Permissible Random Error ± 1.5µl	
Random Error 0.867 µl @ 1000 µl				Maximum Permissible Random Error ± 3µl	
Note:					
1. The UUC is calibrated at Lab					
2. This calibration certificate relates only to the UUC supplied					
3. Calibration certificate shall not be reproduced, except in full, without written approval of medex labtech solutions					
4. Results reported are valid at the time and under stated environmental conditions of calibration					
5. The uncertainty of measurement is expressed at 95.45% confidence level with coverage factor k =2					
6. This calibration certificate is issued for scientific or industrial purpose only					
7. Error is evaluated as (Measured Value-Nominal Value)					
8. Unless Otherwise Specified the Measurement Data Reported is "As Found" -without any adjustment					
9. Next calibration due as per customer's plan and requirement					
10. Decision Rule Required Yes					
11. Decision Rule Statement Pass <input checked="" type="checkbox"/> Fail <input type="checkbox"/>					
12. The Instrument is working with in the tolerance limit as per the Standard					
Calibrated by		Authorised By			
 VIPIN PR Calibration Engineer		 Jude Joseph Raj Quality Manager			
X/657/28, 2nd Floor, RP Tower, Opp. Chalcean Centre, Pallikulam Road, Thrissur, Kerala, India - 680001		Email sales@medexlabtech.com,service@medexlabtech.com Mob: +91 9037588562, 8113816000			





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REPORT ON

ELECTRICAL SAFETY TESTING/ PERFORMANCE ANALYSIS/ CALIBRATION

Report No :	Calibration Date :19-07-2023
Page 1 Of 2	Calibration Due :19-07-2024
1.1 CUSTOMER DETAILS	
Name and address of the organization	GOVERNMENT PRIMARY HEALTH CENTER, ANANTHAPURAM TAMILNADU -628701
Test performed by	MECOM team-1

1.2 DESCRIPTION OF DEVICE UNDER TEST (DUT)

Nomenclature	CENTRIFUGE
A. Manufactured by	
B. Model	
C. Serial No.	
1.3 CONDITION OF THE ITEM WHEN RECEIVED	
No visible damage and in working order	
1.4 Applicable Specification	IEC Specification IEC 60601-1
1.5 Test Done	Performance Test and Electrical Safety Test

1.6 STATUS

Manufactures Specification	Users Specification	Within Specification	Out of Specification	Calibration	Electrical Safety Test	Performance Analysis
✓	-	✓	-	✓	✓	✓

1.7 TRACEABILITY DETAILS OF INSTRUMENTS USED FOR TESTING

SL No	Name of the Instrument	Make	Model	Serial No	Cal Due
1.	ELECTRICAL SAFETY ANALYZER	FLUKE	ESA 612	3005050	MAY 2024
2.	DIGITAL TACHOMETER	LUTRON	DT 2230	Q655879	JUN 2023

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1.8 PERFORMANCE ANALYSIS OF CENTRIFUGE

RPM Measurement

SL.No	Value Set on Device Under Test (DUT) in RPM	Measured value in RPM		Mean Value	Deviation in \pm RPM	Spec.Limit as per mfr.Spec	Remark
1.	1000	990	1005	997.5	-2.5	$\pm 5\%$	PASS
2.	2000	2010	2051	2030.5	30.5	$\pm 5\%$	PASS
3.	3000	3005	3018	3011.5	11.5	$\pm 5\%$	PASS

1.9 ELECTRICAL SAFETY TEST

SL.No	Parameter	Observed value	Acceptable limits as per the Std.	Remarks
1.	Protective earth resistance	0.224 Ω	< 0.3 Ω	ok
2.	Earth leakage	161.47 μ A	< 210 μ A NC	ok
3.	Patient leakage current	NA	< 100 μ A BF	ok
4.	Equipment current	0.2 A	As per manufacture spec	ok
5.	Mains voltage	230.6V	As per manufacture spec	ok

2.0 REMARKS

2.1	This report is applicable to the sample tested only.
2.2	The instruments used for testing are under valid calibration and are traceable to National Standards.
2.3	Parameter of the DUT were verified and found to be within the specified limits.
2.4	refer NABL Doc No. 121 Clause 7.0 Accommodation and environmental Conditions sub Clause see 7.2.11 below in line with ISO/IEC 17025:2005 Clause 5.3

Verified By :



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REPORT ON

ELECTRICAL SAFETY TESTING/ PERFORMANCE ANALYSIS/ CALIBRATION

Report No :	Calibration Date : 19-07-2023
Page 1 Of 2	Calibration Due : 19-07-2024
1.1 CUSTOMER DETAILS	
Name and address of the organization	GOVERNMENT PRIMARY HEALTH CENTER ANANTHAPURAM THOOTHUKUDI DISTRICT TAMILNADU - 628701
Test performed by	MECOM team-1

1.2 DESCRIPTION OF DEVICE UNDER TEST (DUT)

Nomenclature	REFRIGERATOR
A. Manufactured by	...
B. Model	...
C. Serial No.	...
1.3 CONDITION OF THE ITEM WHEN RECEIVED	
No visible damage and in working order	
1.4 Applicable Specification	IEC Specification IEC 60601-1
1.5 Test Done	Performance Test and Electrical Safety Test

1.6 STATUS

Manufactures Specification	Users Specification	Within Specification	Out of Specification	Calibration	Electrical Safety Test	Performance Analysis
✓	-	✓	-	✓	✓	✓

1.7 TRACEABILITY DETAILS OF INSTRUMENTS USED FOR TESTING

Sl No	Name of the Instrument	Make	Model	Serial No	Cal Due
1.	DIGITAL THERMOMETER	PPI/SIMI INDUSTRIAL	SCANLOG 16CH/PT100	PPI- 212217426	NOV 2023
2.	ELECTRICAL SAFETY ANALYZER	FLUKE	ESA612	3005050	MAY 2024



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1.9 PERFORMANCE ANALYSIS OF REFRIGERATOR						
SL NO	Parameter	Value set on STD (°C)	Value measured on DUT (°C)	Deviation (°C)	Specf. Limit as per Mfr. Spec	Remarks
1	TEMPERATURE	4	4.1	0.1	± 2°C	Pass
2		5	5.1	0.1		Pass
3		6	6.3	0.3		Pass
4		8	8.1	0.1		Pass
5		10	10.1	0.1		Pass

2.0 ELECTRICAL SAFETY TEST				
SL.No	Parameter	Observed value	Acceptable limits as per the Std.	Remarks
1.	Protective earth resistance	0.189 Ω	< 0.3 Ω	ok
2.	Earth leakage	142.2 μA	< 210 μA NC	ok
3.	Patient leakage current	NA	< 100 μA BF	ok
4.	Equipment current	0.2 A	As per manufacture spec	ok
5.	Mains voltage(P-E)	230.4 V	--	ok
6.	Mains voltage(P-N)	231.7 V	--	ok
7.	Mains voltage(N-E)	1.2 V	< 5V	ok
8.	Enclosure Leakage Current	53 μA	< 100 μA (Normal)	ok
9.	Insulation Resistance	OL	> 100 M Ω	ok

3.0 REMARKS	
3.1	This report is applicable to the sample tested only.
3.2	The instruments used for testing are under valid calibration and are traceable to National Standards.
3.3	Parameter of the DUT were verified and found to be within the specified limits.
3.4	refer NABL Doc No. 121 Clause 7.0 Accommodation and environmental Conditions sub Clause see 7.2.11 below in line with ISO/IEC 17025:2005 Clause 5.3

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REPORT ON

ELECTRICAL SAFETY TESTING/ PERFORMANCE ANALYSIS/ CALIBRATION

Report No :	Calibration Date :19-07-2023
Page 1 Of 2	Calibration Due :19-07-2024
1.1 CUSTOMER DETAILS	
Name and address of the organization	GOVERNMENT PRIMARY HEALTH CENTER, ANANTHAPURAM TAMILNADU -628701
Test performed by	MECOM team-1

1.2 DESCRIPTION OF DEVICE UNDER TEST (DUT)

Nomenclature	MICROSCOPE
A. Manufactured by	...
B. Model	...
C. Serial No.	...
1.3 CONDITION OF THE ITEM WHEN RECEIVED	
No visible damage and in working order	
1.4 Applicable Specification	IEC Specification IEC 60601-1
1.5 Test Done	Electrical Safety Test

1.6 STATUS

Manufactures Specification	Users Specification	Within Specification	Out of Specification	Calibration	Electrical Safety Test	Performance Analysis
✓	-	✓	-	-	✓	-

1.7 TRACEABILITY DETAILS OF INSTRUMENTS USED FOR TESTING

SL No	Name of the Instrument	Make	Model	Serial No	Cal Due
1.	ELECTRICAL SAFETY ANALYZER	FLUKE	ESA612	3005050	MAY 2024



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2.0 ELECTRICAL SAFETY TEST

SL.No	Parameter	Observed value	Acceptable limits as per the Std.	Remarks
1.	Protective earth resistance	0.189Ω	< 0.3 Ω	ok
2.	Earth leakage	149.23μA	<210 μA NC	ok
3.	Patient leakage current	NA	< 100 μA BF	ok
4.	Equipment current	0.2A	As per manufacture spec	ok
5.	Mains voltage(P-E)	230.4V	--	ok
6.	Mains voltage(P-N)	231.8V	--	ok
7.	Mains voltage(N-E)	1.2V	<5V	ok
8.	Enclosure Leakage Current	50 μA	<100 μA (Normal)	ok
9.	Insulation Resistance	OL	>100 M Ω	ok

3.0 REMARKS

3.1	<i>This report is applicable to the sample tested only.</i>
3.2	<i>The instruments used for testing are under valid calibration and are traceable to National Standards.</i>
3.3	<i>Parameter of the DUT were verified and found to be within the specified limits.</i>
3.4	<i>refer NABL Doc No. 121 Clause 7.0 Accommodation and environmental Conditions sub Clause see 7.2.11 below in line with ISO/IEC 17025:2005 Clause 5.3</i>

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REPORT ON

ELECTRICAL SAFETY TESTING/ PERFORMANCE ANALYSIS/ CALIBRATION

Report No :	Calibration Date :19-07-2023
Page 1 Of 2	Calibration Due :19-07-2024
1.1 CUSTOMER DETAILS	
Name and address of the organization	GOVERNMENT PRIMARY HEALTH CENTER,
	ANANTHAPURAM
	TAMILNADU -628701
Test performed by	MECOM team-1

1.2 DESCRIPTION OF DEVICE UNDER TEST (DUT)	
Nomenclature	SEMI AUTO ANALYZER
A. Manufactured by	ROBONIK
B. Model	...
C. Serial No.	...
1.3 CONDITION OF THE ITEM WHEN RECEIVED	
<i>No visible damage and in working order</i>	
1.4 Applicable Specification	<i>IEC Specification IEC 60601-1</i>
1.5 Test Done	<i>Electrical Safety Test</i>

1.6 STATUS						
Manufactures Specification	Users Specification	Within Specification	Out of Specification	Calibration	Electrical Safety Test	Performance Analysis
✓	-	✓	-	-	✓	-

1.7 TRACEABILITY DETAILS OF INSTRUMENTS USED FOR TESTING					
SL No	Name of the Instrument	Make	Model	Serial No	Cal Due
1.	ELECTRICAL SAFETY ANALYZER	FLUKE	ESA612	3005050	MAY 2024

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2.0 ELECTRICAL SAFETY TEST

SL.No	Parameter	Observed value	Acceptable limits as per the Std.	Remarks
1.	Protective earth resistance	0.190Ω	< 0.3 Ω	ok
2.	Earth leakage	149.24μA	<210 μA NC	ok
3.	Patient leakage current	NA	< 100 μA BF	ok
4.	Equipment current	0.2A	As per manufacture spec	ok
5.	Mains voltage(P-E)	230.8V	--	ok
6.	Mains voltage(P-N)	232.2V	--	ok
7.	Mains voltage(N-E)	1.2V	<5V	ok
8.	Enclosure Leakage Current	50 μA	<100 μA (Normal)	ok
9.	Insulation Resistance	OL	>100 M Ω	ok

3.0 REMARKS

3.1	<i>This report is applicable to the sample tested only.</i>
3.2	<i>The instruments used for testing are under valid calibration and are traceable to National Standards.</i>
3.3	<i>Parameter of the DUT were verified and found to be within the specified limits.</i>
3.4	<i>refer NABL Doc No. 121 Clause 7.0 Accommodation and environmental Conditions sub Clause see 7.2.11 below in line with ISO/IEC 17025:2005 Clause 5.3</i>

Verified By :



Handwritten signature