

CALIBRATION CERTIFICATE

NAME OF CUSTOMER : ABC MICRO LAB
 UNIT DESCRIPTION : REFRIGERATOR
 COMPANY : WHIRLPOOL
 SERIAL NO : INC210422687
 DATE OF CALIBRATION : 01.04.2023
 VALID UP TO : 31.03.2024

INSTRUMENT USED FOR CALIBRATION: DIGITAL THERMOMETER

MODEL NO:KUSAM-MECO&KM-945

SL.NO: S1023388

CERTIFIED BY: MSIR INDIA PVT. LTD

INSTRUMENT VALIDITY: 22-02-2024

ENVIROMENTAL CONDITION:

S.NO	Instrument Temperature Displayed	Thermometer Temperature Displayed	Difference $\pm 1^{\circ}\text{c}$	Remarks
1.	TOP - $+5^{\circ}\text{C}$	$+5.1^{\circ}\text{C}$	0.1	OK
2.	MIDDLE - $+5^{\circ}\text{C}$	$+5^{\circ}\text{C}$	0.0	OK
3.	BOTTOM - $+5^{\circ}\text{C}$	$+5.3^{\circ}\text{C}$	0.3	OK

STANDARD INSTRUMENT USED:

Nomenclature:	Digital Thermometer with Sensor(K Type)	Serial no:	S1023388
Make& Model:	KUSAM MECO & KM-945	Code/ID No:	---
Range:	-50°C to 1300°C	Resolution:	1°C

TESTED BY: G.DINESH

APPROVED BY: G.DINESH

NOTE: 1) Calibration Points & due date is given as per customer request 2) This certificate refer only to particular item submitted for certificate3) The calibration results reported are valid at the time of and under the stated conditions of the measurements4) Any error in the certificate should be brought to our lab within 45 days from the date of issue of certificate.



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TRACEABILITY copy



#40, 2nd Floor, 2nd Street,
Padmavathi Nagar, Chromepet,
Chennai, Tamil Nadu - 600 044.

MCAL/FOR/QD-12

CALIBRATION CERTIFICATE

PRF #	: MCAL/PRF/052351	Date of Calibration	: 18-May-2023	Page # 1 of 2
Certificate #	: MSIR/410523/51-001	Recom. Due Date	: 17-May-2024	

DETAILS OF USER CUSTOMER

M/S. Newton biomedical Service, 27, Pradhakshanam Road, A-Plot, 2nd Floor, Karur-639 001.	ULR #	: CC323723000008561P
	Calibrated at	: Lab
	Date of Receipt	: 18-May-2023
	Cond. On Receipt	: Satisfactory
	Date of Issue	: 19-May-2023

DETAILS OF TEST / UNIT UNDER CALIBRATION

Description	: Digital Thermometer With Sensor	Identification #	: --
Range	: -50 to 1300 °C	Serial #	: S1023388
Cal. / Working Range	: 50 to 400 °C	Make	: Kusam-Meco
Least Count	: 1 °C	Model # / Type	: KM-945
Location	: --	Accuracy	: --

DETAILS OF MASTER INSTRUMENT USED

Description (Range)	Identification #	Valid upto (Due Date)	Traceability Certificate #
Digital Thermometer	MCAL/INS/TH-45	4-Dec-2023	MSIR/411222/41-003
RTD "1/10Din" (-80 to 250)	MCAL/INS/TH-02	3-Mar-2024	TSC/22-23/18030-1
TC "S-Type" (200 to 1200°C)	MCAL/INS/TH-03	3-Mar-2024	TSC/22-23/18030-2

MFC #	: MCAL/MFC/TH-02
Details of Env.	: Temperature : 25±2°C Relative Humidity : 55±20 % RH

Issued by :
MCAL - Engineer

M. Jayk
AJEETH KUMAR. M

Authorised by :
Assistant Manager

**MSIR INDIA PRIVATE LIMITED**

(The Madras Science and Industrial Resources)

Phone : 044 2265 2634, +91 9789877567, Email: calibration@msirindia.com Web: www.msirindia.com



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Certificate # MSIR/410523/51-001

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Senspr-T1

CALIBRATION RESULTS				
Parameter : Thermal				
Sl. #	Test Readings (°C)	Standard Readings (°C)	Error (°C)	Uncertainty ± (°C)
1.	52	52.39	-0.39	0.25
2.	109	109.65	-0.65	0.25
3.	213	213.83	-0.83	0.25
4.	305	305.99	-0.99	0.28
5.	407	408.13	-1.13	1.80

Senspr-T2

CALIBRATION RESULTS				
Parameter : Thermal				
Sl. #	Test Readings (°C)	Standard Readings (°C)	Error (°C)	Uncertainty ± (°C)
1.	52	52.75	-0.75	0.25
2.	109	109.93	-0.93	0.25
3.	213	214.13	-1.13	0.25
4.	305	306.38	-1.38	0.28
5.	407	408.41	-1.41	1.80

Remarks

1. The reported Expanded Uncertainty is calculated at 95.45 % C.L. with coverage factor k=2.
2. The reported readings are average of three readings.
3. Temperature Scale : ITS-90 Chart.

Issued by :		Authorised by :	
MCAL - Engineer	AJEETH KUMAR. M	Assistant Manager	BALASUBRAMANIAN D.

*** End of Certificate ***

MSIR INDIA PRIVATE LIMITED

(The Madras Science and Industrial Resources)

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