



NABL Accredited Calibration Lab as per ISO/IEC 17025:2017

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CC-3103

FCL/FM/CL/06

CERTIFICATE OF CALIBRATION

SRF No.	F0123	Certificate No.	FCL/24/F0123-01	ULR No.	CC310324000000685F
Date of SRF	23-08-2024	Date of Cal.	23-08-2024	Next Cal Due	22-08-2025
Issue Date	24-08-2024	Cal Procedure No.	FCL-SOP-THE-01	Reference Std.	DKD-R 5-1
No of Pages	01	Page No.	01 of 01	Status on Receipt	Satisfactory
DISCIPLINE-GROUP : Thermal-Temperature				Cal Done At	Onsite

Customer Name & Full Address:

M/s. ICTC G.G.H Afzalpur,
Main Road Afzalpur, Dist Kalburgi,
Karnataka-585301.

DUC DETAILS

Nomenclature	Digital Thermometer	Model / Type	NA
Make	Multi Thermometer	Range	-50 to 300 °C
Serial. No	NA	Resolution	0.1 °C
ID No	ICTC/GGH/Afzalpur/Thermometer-01	Accuracy	NA
Location	ICTC Lab		

STANDARDS USED FOR CALIBRATION AND TRACEABILITY DETAILS

Nomenclature	Make/Model	SI. No / ID No.	Traceable to	Validity
4 Wire RTD Sensor With DMM	Tempsens & Yokogawa / PT - 100X1, Simplex & CA71	2113016632 & 2267021/FCL-TH-02 & FCL-TH-02A	TMS/24/64-01	15-03-2025

Temperature Bath Calibrator used as Source

Environmental Condition : Temperature : 25.4 °C Humidity: 52 %RH

Calibration Results: All Readings are in °C

SI No	Set Temp	STD Readings	DUC Readings	Observed Deviation	Computed Measurement Uncertainty (±)
1	-30	-30.156	-30.3	-0.144	0.8
2	-10	-10.104	-10.2	-0.096	0.8
3	0	0.023	0.1	0.077	0.8
4	50	50.451	50.2	-0.251	0.8
5	100	100.215	100.4	0.185	0.8
6	200	200.524	200.3	-0.224	0.8
7	300	300.845	300.5	-0.345	0.8

Remarks :

- The Measurement Uncertainty is estimated at a confidence level of 95.45% with a coverage factor k=2.
- This Calibration Certificate refers only to the Particular item submitted for calibration. Calibration points given as per customer request.
- NABL Accredited Calibration Lab as per ISO/IEC 17025:2017 with vide Certificate No:CC-3103
- The Usage of NABL symbol is as per NABL guidelines given in NABL 133. The Calibration Certificate relates only to the above DUC.
- Calibration Certificate Shall not be reproduced except in full, without written approval of the Flowcal.
- Standard maintained are traceable to National / International Standard through accredited laboratories

Calibrated by

Rajashekar

(Calibration Engineer)



Authorized by

Vinay Kumar

(CEO)

*****End of Calibration Certificate*****



CERTIFICATE OF CALIBRATION

SRF No.	F0123	Certificate No.	FCL/24/F0123-02	ULR No.	CC310324000000686F
Date of SRF	23-08-2024	Date of Cal.	23-08-2024	Next Cal Due	22-08-2025
Issue Date	24-08-2024	Cal Procedure No.	FCL-SOP-MECH-02	Reference Std.	SANAS-TR 45-01
No of Pages	01	Page No.	01 of 01	Status on Receipt	Satisfactory
DISCIPLINE-GROUP : MECHANICAL - Acceleration and Speed				Cal Done At	Onsite

Customer Name & Full Address:

M/s. **ICTC G.G.H Afzalpur,**
Main Road Afzalpur, Dist Kalburgi,
Karnataka-585301.

DEVICE UNDER CALIBRATION (DUC) DETAILS

Nomenclature	Digital Centrifuge	Model	R 8C
Make	Remi	Range	0-6000 RPM
Serial. No	LKL0-9602	Resolution	10 RPM
ID No	ICTC/GGH/Afzalpur/Centrifuge-01	Accuracy	± 0.05%
Location	ICTC Lab		

STANDARDS USED FOR CALIBRATION AND TRACEABILITY DETAILS

Nomenclature	Make/Model	Sl. No / ID No.	Traceable to	Validity
Digital Tachometer	Lutron & DT2236	Q652919	EQN/CRF/24080065	07-08-2025

Environmental Condition :

Temperature : 20.4 °C

Humidity: 42 %RH

MODE :NON CONTACT

Calibration Results:

All Readings are in RPM

SI.NO	DUC Set	Standard Readings	Observed Deviation	Computed Measurement Uncertainty (±) in %
1	500	499.5	0.5	2.50
2	1000	999.3	0.7	2.50
3	2000	1997	3	2.50
4	3000	2995	5	2.50
5	4000	3991	9	2.50
6	6000	5986	14	2.50

Remarks :

1.The Measurement Uncertainty is estimated at a confidence level of 95.45% with a coverage factor k=2.

Calibrated by


Rajashekar
Calibration Engineer



Authorized by


Vinay Kumar
CEO

*****End of Calibration Certificate*****



CERTIFICATE OF CALIBRATION

TVCSPL/F/7.8/01		Page 1 of 1	
ULR No.	CC39352400004198F	Date of Issue	24-08-2024
Certificate No.	TVCSPL 24/08/0989-01	Recom. Due Date	22-08-2025
Date of Calibration	23-08-2024	SRF No.	989
Customer Details	M/s. ICTC G.G.H Afzalpur, Main Road Afzalpur, Dist Kalburgi, Karnataka-585301.	Calibrated at	LAB
		Date of Receipt	23-08-2024
		Cond. On Receipt	Satisfactory
Details of Test Instrument:			
Description	Digital Timer	Model No.	DT 109
Range	0 to 60 Min	Serial No.	-
Least Count	0.01sec	Identification No.	ICTC/CGH/Afzalpur/Timer-01
Make	Aceteq	Accuracy	-
Working range	-	Location	ICTC LAB
Details of Standard Used			
Name	Digital Time Calibrator	Certificate No.	HT/CC/240201-18/001
		Valid upto	31-01-2025
		calibrated at	CC-2151
Work Instruction	WI-E-01		
Environmental Details	Temperature: 25±4 °C	Relative Humidity:	45-75 % RH

ELECTROTECHNICAL CALIBRATION

(Time & Frequency)
Calibration Results

Results of Calibration				
Sl. No.	Standard Reading (hr:mins:ms)	UUC Reading (hr:mins:ms)	Error (sec)	Measurement Uncertainty ± (sec)
01	00:01:00.01	00:01:00.00	-0.01	0.08
02	00:03:00.02	00:03:00.00	-0.02	0.28
03	00:05:00.02	00:05:00.00	-0.02	0.17
04	00:10:00.04	00:10:00.00	-0.04	0.13
05	00:15:00.04	00:15:00.00	-0.04	0.60
06	00:20:00.02	00:20:00.00	-0.02	0.61
07	00:30:00.03	00:30:00.00	-0.03	0.63
08	01:00:00.03	01:00:00.00	-0.03	0.74

Remarks:-

- The above DUC was Calibrated at On-site.
- UUC is defined as Unit Under Calibration
- Reading given was the average of 3 Measurements
- The measurement confidence level is 95.45%
- The Calibration Certificate shall not be reproduced except in full without written approval of TVCSPL
- The above Expanded Uncertainty includes Repeatability, Resolution & Uncertainty of Measurement
- Calibration of the UUC are traceable to SI units
- The above results relate only to the item calibrated

Calibrated by:
M. Arun Kumar
M.Arun Kumar
(Calibration Engineer)



Authorised by:
Mr. Anand Manoharan
Mr. Anand Manoharan
(QM & TM)

...redefining the true value

