



EASTERN CALIBRATORS

(An NABL accredited & ISO 9001 : 2015 Certified Laboratory)

OFFICE / LABORATORY : 58/3, PRINCE ANWAR SHAH ROAD, KOLKATA - 700 045
 PH. : 2422-7740, 2422-0214, 2422-5927 ★ E-mail : eastcalib@gmail.com, east_774006@bsnl.in



NABL ACCREDITATION
 Certificate No.: CC-2318

ULR - CC231821000001523F

QR 5.10 - 1

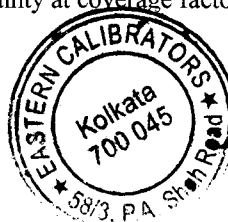
Certificate No. EC/D-03/04/TC-01/2021-2022		Dt. 05.04.2021	
Issued To: M/s, KINS CARE & RESEARCH FOUNDATION PVT. LTD. GOLDING HEIGHT BUILDING 1ST FLOOR, JHANKAR MORE SILIGURI - 734 005.		Date Received: At Lab on 05.04.2021	Date Calibrated: 05.04.2021
		Recommended date	05.04.2022
		for re-calibration:	
Description and Identification of Instrument to be calibrated at Lab/Site:			
Name: Digital Temperature Indicator	Make: N / F	Srl No./ID: KCRF / DTI - 01	Resolution: 0.1°C
Range: (Upto 300°C),	Location:		
Sensor Type:			
Condition when received: Satisfactory (as visually assessed)			
Environmental Conditions: Temperature: 25 ± 2°C		Humidity: 60 ± 10% RH	
Calibration Method : WI-THERM-03 & Cross reference to IS: 2848 - 1986 (Reaffirmed 2011)			
Standards Used : Digital Thermometer with Sensor, Make: Lutron, Srl No. Q 602333			
Traceability: To YEA vide their Calibration Certificate No. YEA(C)/200606/E038/001 Dt: 08.06.2020			

CALIBRATION RESULTS

Srl No	Average DUC Value (°C)	Average Std. Value (°C)	Absolute Error (°C)	MU ± (°C)
1	50.0	50.2	-0.2	0.99
2	100.0	100.3	-0.3	0.99
3	150.0	150.4	-0.4	3.51
4	200.1	200.6	-0.5	3.51
5	250.2	250.9	-0.7	3.51

Absolute Error = (DUC value - Standard Value)
 MU: Measurement Uncertainty at coverage factor $k=2$

Calibrated by
 R. Biswas



Checked & Approved by

Authorized Signatory

Remarks: The above Digital Temperature Indicator has been calibrated over its range and the readings obtained are tabulated above.



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NABL ACCREDITATION
Certificate No.: CC-2318

ULR - CC231821000001524F

Cert. No. EC/D-03/04/DTHM-01/2021-2022

Dt: 05.04.2021

Issued to : M/s. KINS CARE & RESEARCH
FOUNDATION PVT. LTD.
GOLDING HEIGHT BUILDING
1ST FLOOR, JHANKAR MOR
SILIGURI - 734 005.

CALIBRATION REPORT

Calibrated on : 05.04.2021	Recommended Date for next calibration on : 05.04.2022	Page One	No of Pages 2
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Receipt of Instrument : At Lab on 05.04.2021

Description of Instrument : Humidity Meter

Make : N / F

Identification : KCRF / THM - 01

Condition of Instrument : Satisfactory (as visually assessed)

Calibration Method : Comparison with Std. with reference to
WI - ELEC - 03 & cross reference to
IS : 1248 (Part - 6) 1983

Environmental Condition : Temp. $25 \pm 2^{\circ}\text{C}$ R/H: $60 \pm 10\%$

Standards Used : Digital Temperature & Humidity Indicator (Sl.No. 180907389)

Traceability : To NPL through YEA vide their Certificate No.
YEA(C)/200718/E038/001 Dt: 20.07.2020

Measurement Uncertainty : The figures are stated in the result at coverage factor $k = 2$
corresponding to confidence probability of 95% (approx).

Laboratory Identification : Sticker is affixed for the authentication of calibration.

The above Instrument/Equipment/Machine has been calibrated up to its range.
The results are given in the page 2 to.....2.....of the report.



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NABL ACCREDITATION
Certificate No.: CC-2318

Cert. No. EC/D-03/04/DTHM-01/2021-2022

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2 pages

CALIBRATION RESULTS.

A. Calibration Result of Temperature: Upto 50°C, L/c: 0.1°C

SI No	DUC Value	Standard Value					Average	Abs Error	Expanded Uncertainty
		°C					Standard Reading		
	°C	(a)	(b)	(c)	(d)	(e)	°C	°C	(± °C)
1	25.6	25.3	25.2	25.3	25.4	25.3	25.3	0.3	1.43
2	30.5	30.2	30.1	30.2	30.2	30.3	30.2	0.3	1.43
3	35.4	35.1	35.0	35.1	25.2	35.1	33.1	2.3	4.20
4	40.5	40.1	40.0	40.1	40.1	40.2	40.1	0.4	1.43

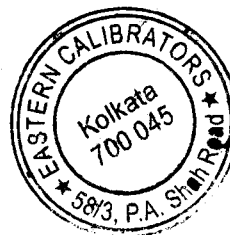
B. Calibration Result of Humidity: Range: Upto 99.9% RH L/c: 0.1% RH

SI No	DUC Value	Standard Value					Average Reading	Abs Error	Expanded Uncertainty
		%RH							
	%RH	(a)	(b)	(c)	(d)	(e)	%RH	%RH	%RH
1	60	61.3	61.2	61.3	61.3	61.4	61.3	-1.3	3.03
2	79	79.4	79.4	79.3	79.4	79.5	79.4	-0.4	3.03
3	83	83.4	83.3	83.4	83.5	83.4	83.4	-0.4	3.03
4	90	90.5	90.5	90.4	90.5	90.6	90.5	-0.5	3.03

* DUC = Device Under Calibration

Remarks : The above Digital Thermo Hygrometer has been calibrated upto 90.5% RH and the readings obtained are tabulated above.

Calibrated by
R. Biswas



Checked & Approved by

Authorized Signatory

TRACEABILITY



YEA
YOUNG ENGG. & CALIBRATION SERVICES PVT LTD.
 Admin. Office & Lab : 44, Shahid Khudiram Bose Road (Formerly Panchsagar Road), Bhopal, Howrah-711 104
 E-mail : calibration@youngengg.com & info@youngengg.com
 CIN : U74140WB2003PTC 10A 1WV & Toll Free Help Desk : 1800-345-9001

Tel: 011 2677 1411, 0664 3102, 87329 85881
 Toll Free : 033 2677 1411

Calibration Certificate

Dated : 09.06.2020

Next Calibration Due On : 08.06.2021 Page No. 1 No. of Pages 2

: Digital Thermometer With Sensor
 : ID - DT - 01
 : -200 to 800 °C
 : 0.1 °C
 : Lutron (S/N No. : Q602333)
 : TM - 936
 : 2006667338001 - 001
 : 06.06.2020
 : In house
 : Not Specified
 : Satisfactory
 : Comparison method with reference to YEA/W/T-05
 : Temp. : 25±2°C RH : 50±15%
 : Standard Temperature Calibrator & Standard RTD Sensor
 : Standard N Type Thermocouple
 : To National Standard wide Certificate No.
 : YEA/C/200214/Y001/001 valid till 14.02.2021
 : TL/2020/12.1.2 valid till 18.02.2021
 : YEA(CY)191104/Y001/001 valid till 03.11.2020
 : The figures are stated in the result at coverage factor
 : k= 2 corresponding to confidence probability of
 : 95% for normal distribution.
 : Sticker is affixed for authentication of calibration.



CC-2221

Acceptance:
 Location where calibration performed
 Applicable Version of Instrument to be Calibrated
 Condition of Instrument to be Calibrated
 Basis of Calibration
 Environment of Condition during Calibration
 Equipment used for Calibration
 Traceability
 Measurement Uncertainty
 Laboratory Identification

The above Instrument/Equipment/Machine has been calibrated up to its range.
 The results are given in the page 2 to 2 of the certificate.

Code: 2



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Tel: 011 2677 1411, 0664 3102, 87329 85881
 Toll Free : 033 2677 1411

Certificate No.: YEA(CY) 200606/E038/001
 Calibrated By : U. Goswami

Date of Calibration : 09.06.2020
 Page No. of Pages : 1/2

Calibration Results

Thermal Calibration :
 Calibration Results of Digital Thermometer With Sensor

Sl. No.	DUC Value (°C)	Standard Value (°C)	Measurement Uncertainty (k=2)
1	-49.4	-49.33	0.19
2	-20.3	-20.09	0.19
3	0.2	0.11	0.21
4	49.8	49.67	0.35
5	99.8	99.54	0.35
6	199.5	199.13	0.15
7	299.3	298.70	0.19
8	399.9	399.51	1.40
9	499.6	498.78	1.30

DUC : Device Under Calibration

REMARKS : The above Digital Thermometer With Sensor has been calibrated and the readings are tabulated above

NOTES : This certificate refers to the value observed at the time of 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 ***



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Calibration Certificate

Certificate No. YEA/CC/2103211000021687
ILB No. : CC2103211000021687

Dated : 11.03.2021

Calibrated by :

Instrument No.	Serial Calibration Due On	Page No.	No. of Pages
210310E035401-001	11.03.2022	1	4

Instrument Name : Digital Temperature Calibrator
 SI. No. : 995704666
 Manufacturer : H
 Reference : 210310E035401-001
 Calibration Date : 10.03.2021
 Calibration performed : In house
 Specification of instrument to be calibrated : Not Specified
 Instrument to be calibrated : RTD PT100
 Environmental Condition during Calibration :
 Equipment used for Calibration :
 Traceability :

Certificate No. YEA/CC/210310E038001
ILB No. : CC210310E000021687
Calibrated By : L. Goswami

Dated : 11.03.2021
Page 2 of 4 Pages

Calibration Result

Electro-Technical Calibration

A) Source Mode (Voltage) :

S. No.	Range	DUC Value (mV)	Standard Value (mV)	Deviation (mV)	Percentage Error (%)	Measurement Uncertainty (mV)
1	110 mV	10.000	9.99632	-0.00368	-0.03682	0.0037
2		50.000	50.00067	+0.00067	+0.0134	0.0017
3		80.000	80.00367	+0.00367	+0.0459	0.0017
4		100.000	100.00578	+0.00578	+0.0578	0.0017
5	1100 mV	500.00	500.0211	+0.0211	+0.0422	0.0017
6		800.00	800.0567	+0.0567	+0.0709	0.0017
7		900.00	900.0765	+0.0765	+0.0850	0.0017
8		1000.00	1000.0765	+0.0765	+0.0765	0.0017

B) Source Mode (Temperature) :

S. No.	Parameter	Temp. set on DUC in °C	Observed Standard Value in (mV)	Corresponding Standard Value in (°C)	Deviation (°C)	Measurement Uncertainty (°C)
9	TC - K - Type	100.0	3.9948	399.06	0.04	0.07
10		200.0	24.9033	599.65	0.05	0.06
11		300.0	29.1245	699.80	0.11	0.06
12		400.0	33.3199	799.83	0.15	0.06
13	TC - J - Type	1200.0	48.8316	1199.83	0.18	0.06
14		50.0	2.8827	49.95	0.05	0.06
15		100.0	5.7653	99.93	0.07	0.06
16		200.0	10.7318	199.87	0.15	0.06
17	TC - R - Type	300.0	21.8781	299.82	0.18	0.06
18		400.0	29.944	399.82	0.66	0.06
19		500.0	40.6623	499.84	0.46	0.06
20		600.0	49.9438	599.83	0.57	0.06
21	TC - R - Type	700.0	58.2858	699.83	0.68	0.06
22		800.0	66.0292	799.82	0.97	0.06
23		900.0	72.2102	899.81	0.83	0.06
24		1000.0	77.9438	999.81	0.83	0.06
25	TC - R - Type	1100.0	83.2299	1099.82	0.83	0.06
26		1200.0	88.116	1199.83	0.83	0.06
27		1300.0	92.6021	1299.83	0.83	0.06
28		1400.0	96.7882	1399.83	0.83	0.06
29	TC - R - Type	1500.0	100.6743	1499.83	0.83	0.06
30		1600.0	104.3604	1599.83	0.83	0.06
31		1700.0	107.8465	1699.83	0.83	0.06
32		1800.0	111.1326	1799.83	0.83	0.06
33	TC - R - Type	1900.0	114.2187	1899.83	0.83	0.06
34		2000.0	117.1048	1999.83	0.83	0.06
35		2100.0	119.7909	2099.83	0.83	0.06
36		2200.0	122.277	2199.83	0.83	0.06
37	TC - R - Type	2300.0	124.5631	2299.83	0.83	0.06
38		2400.0	126.6492	2399.83	0.83	0.06
39		2500.0	128.5353	2499.83	0.83	0.06
40		2600.0	130.3214	2599.83	0.83	0.06

YEA/CCP



YEA

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Certificate No. YEA/CC/210310E038001
ILB No. : CC210310E000021687
Calibrated by : L. Goswami

Dated : 11.03.2021
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S. No.	Range	DUC Value (mV)	Standard Value (mV)	Deviation (mV)	Percentage Error (%)	Measurement Uncertainty (mV)
5	500 Ω	12.000	12.000	0.000	0.000	0.001
6		45.000	45.000	0.000	0.000	0.001
7		100.000	100.000	0.000	0.000	0.001
8		200.000	200.000	0.000	0.000	0.001
9	400 Ω/000	100.000	100.000	0.000	0.000	0.001
10		200.000	200.000	0.000	0.000	0.001
11		300.000	300.000	0.000	0.000	0.001
12		400.000	400.000	0.000	0.000	0.001

B) Source Mode (Resistance) :

S. No.	Parameter	Temp. set on Standard in °C	Observed Standard Value in (mV)	Corresponding Standard Value in (°C)	Deviation (°C)	Measurement Uncertainty (°C)
13	RTD PT100	0.0	1.3630	1.3630	0.000	0.001
14		50.0	119.99	119.99	-0.01	0.001
15		100.0	239.99	239.99	-0.01	0.001
16		150.0	359.99	359.99	-0.01	0.001
17	RTD PT100	200.0	479.99	479.99	-0.01	0.001
18		250.0	599.99	599.99	-0.01	0.001
19		300.0	719.99	719.99	-0.01	0.001
20		350.0	839.99	839.99	-0.01	0.001
21	RTD PT100	400.0	959.99	959.99	-0.01	0.001
22		450.0	1079.99	1079.99	-0.01	0.001
23		500.0	1199.99	1199.99	-0.01	0.001
24		550.0	1319.99	1319.99	-0.01	0.001
25	RTD PT100	600.0	1439.99	1439.99	-0.01	0.001
26		650.0	1559.99	1559.99	-0.01	0.001
27		700.0	1679.99	1679.99	-0.01	0.001
28		750.0	1799.99	1799.99	-0.01	0.001
29	RTD PT100	800.0	1919.99	1919.99	-0.01	0.001
30		850.0	2039.99	2039.99	-0.01	0.001
31		900.0	2159.99	2159.99	-0.01	0.001
32		950.0	2279.99	2279.99	-0.01	0.001
33	RTD PT100	1000.0	2399.99	2399.99	-0.01	0.001
34		1050.0	2519.99	2519.99	-0.01	0.001
35		1100.0	2639.99	2639.99	-0.01	0.001
36		1150.0	2759.99	2759.99	-0.01	0.001

C) Measure Mode (Temperature) :

S. No.	Parameter	Temp. set on Standard in °C	Observed Standard Value in (mV)	Corresponding Standard Value in (°C)	Deviation (°C)	Measurement Uncertainty (°C)
37	TC - K - Type	100.0	3.996	399.1	0.1	0.06
38		200.0	24.906	599.6	0.1	0.06
39		300.0	29.126	699.7	0.1	0.06
40		400.0	33.317	799.6	0.6	0.06
41	TC - J - Type	1200.0	48.831	1199.9	-0.1	0.06
42		50.0	2.883	49.9	-0.2	0.06
43		100.0	5.766	99.7	-0.3	0.06
44		200.0	10.732	199.4	-0.6	0.06
45	TC - R - Type	300.0	21.878	299.2	-0.8	0.06
46		400.0	29.944	399.2	-1.0	0.06
47		500.0	40.663	499.2	-0.8	0.06
48		600.0	49.944	599.2	-0.8	0.06
49	TC - R - Type	700.0	58.286	699.2	-0.8	0.06
50		800.0	66.030	799.2	-0.8	0.06
51		900.0	72.211	899.2	-0.8	0.06
52		1000.0	77.945	999.2	-0.8	0.06
53	TC - R - Type	1100.0	83.231	1099.2	-0.8	0.06
54		1200.0	88.117	1199.2	-0.8	0.06
55		1300.0	92.603	1299.2	-0.8	0.06
56		1400.0	96.789	1399.2	-0.8	0.06
57	TC - R - Type	1500.0	100.675	1499.2	-0.8	0.06
58		1600.0	104.361	1599.2	-0.8	0.06
59		1700.0	107.847	1699.2	-0.8	0.06
60		1800.0	111.133	1799.2	-0.8	0.06
61	TC - R - Type	1900.0	114.219	1899.2	-0.8	0.06
62		2000.0	117.105	1999.2	-0.8	0.06
63		2100.0	119.791	2099.2	-0.8	0.06
64		2200.0	122.277	2199.2	-0.8	0.06
65	TC - R - Type	2300.0	124.563	2299.2	-0.8	0.06
66		2400.0	126.649	2399.2	-0.8	0.06
67		2500.0	128.535	2499.2	-0.8	0.06
68		2600.0	130.321	2599.2	-0.8	0.06
69	TC - R - Type	2700.0	132.007	2699.2	-0.8	0.06
70		2800.0	133.693	2799.2	-0.8	0.06
71		2900.0	135.379	2899.2	-0.8	0.06
72		3000.0	137.065	2999.2	-0.8	0.06

Certificate No. YEA/CC/210310E038001
ILB No. : CC210310E000021687
Calibrated By : L. Goswami

Dated : 11.03.2021
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S. No.	Parameter	Temp. set on Standard in °C	Observed Standard Value in (mV)	Corresponding Standard Value in (°C)	Deviation (°C)	Measurement Uncertainty (°C)
33	RTD PT100	20.0	0.736	20.0	0.000	0.001
34		40.0	1.472	40.0	0.000	0.001
35		60.0	2.208	60.0	0.000	0.001
36		80.0	2.944	80.0	0.000	0.001
37	RTD PT100	100.0	3.680	100.0	0.000	0.001
38		120.0	4.416	120.0	0.000	0.001
39		140.0	5.152	140.0	0.000	0.001
40		160.0	5.888	160.0	0.000	0.001
41	RTD PT100	180.0	6.624	180.0	0.000	0.001
42		200.0	7.360	200.0	0.000	0.001
43		220.0	8.096	220.0	0.000	0.001
44		240.0	8.832	240.0	0.000	0.001
45	RTD PT100	260.0	9.568	260.0	0.000	0.001
46		280.0	10.304	280.0	0.000	0.001
47		300.0	11.040	300.0	0.000	0.001
48		320.0	11.776	320.0	0.000	0.001
49	RTD PT100	340.0	12.512	340.0	0.000	0.001
50		360.0	13.248	360.0	0.000	0.001
51		380.0	13.984	380.0	0.000	0.001
52		400.0	14.720	400.0	0.000	0.001
53	RTD PT100	420.0	15.456	420.0	0.000	0.001
54		440.0	16.192	440.0	0.000	0.001
55		460.0	16.928	460.0	0.000	0.001
56		480.0	17.664	480		





WASTE SAMPLE COLLECTION
DATE: 17/01/2024

TEMPERATURE

20.21 °C

PM 5:47 35%

CLOCK / HUMIDITY
HTC-1





REFRIGERATOR - 01

5 YEAR
WARRANTY



