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**MASTERTECH
SYSTEMS**
WHEN QUALITY MATTERS

CALIBRATION CERTIFICATE

Certificate No. :- 2223/0211/08-03	ULR No. :- CC291123 000008020 F
Date of Calibration :- 11-Feb-2023	Calibration Due Date :- 10-Feb-2024
1.Customer Name & Address : Health Horizon Diagnostics Varun Capital, Flat No.401 & 402, CTS No.364,365/13,FP No.713,714/13,Shivaji Na Pune-411005	SRF No. :- 2223/0211/08 Date of Received :- 11-Feb-2023 Cal. Cert. Issue Date :- 14-Feb-2023 Condition of UUC :- OK Location of calibration :- In Lab Calibration Procedure No. :- MTS/TH/WI-03 Ref.IS Used :- IS 2848

2.Environmental Conditions:	Temperature: 24.1 °C	Relative Humidity: 56 % RH
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3. Description of UUC			
Name :- Thermometer	Range :- -30 to 300	Deg C	
Make :- Multi	Resolution :- 0.1	Deg C	
I.D No. :- HDD/IN/RF/T-01	Model/Sr.No. :- NA		
Type :- Digital	Location :- —		
Accuracy :- NA			

4. Reference Standards used for calibration:			
Name :- 4- Wire RTD Sensor With Indicator	R Type Thermocouple With Indicator		
Make / Model :- Tempsens, 4 Wire/Tempmet	Tempsens, R Type/Tempmet		
I.D No./Sr. No. :- MTS/TIS-01/867,0042	MTS/TIS-02 / 1296,0042		
Certificate No. :- NI/2206/016/001	FCS/2205/0603/001		
Calibration Validity :- 05-06-2023	02-06-2023		
Certified By :- Nishitronics (CC-2294)	Fine Calibration (CC-3378)		
Range/Uncertainty :- 250 Deg C./(+/-) 0.09 Deg C.	1200 Deg C./(+/-) 1.9 Deg C.		

5. Calibration Results					
Sr.No.	Calibration Point	UUC Reading	Standard Reading	Deviation	Expanded Uncertainty
	Deg C	Deg C	Deg C	Deg C	± Deg C
1	-30	-29.7	-30.15	0.45	0.28
2	100	99.5	100.20	-0.70	0.28
3	300	298.9	300.28	-1.38	0.85

- NOTES:**
- The value measured of uuc & standard are mean of 5 reading.
 - The reported uncertainty is the expanded uncertainty in measurement obtained by multiplying the standard uncertainty by coverage factor K=2, which corresponds to a coverage probability of approximately 95.45% for normal distribution
 - This certificate refers only to the particular UUC submitted for calibration. UUC stands for Unit Under Calibration.
 - The calibration results reported in the certificate are valid at the time of and under the stated conditions of measurement.
 - This certificate shall not be reproduced, except in full unless written permission for the publication of an approved abstract has been obtained from "Mastertech Systems" Pune.
 - The Instruments used for calibration are traceable to National/International standards and their calibrations are valid.
 - International Temp. Scale-1990 (ITS-90) is followed during calibration of above instrument.

Calibrated By

Mr. Parshuram Mundhekar
Calibration Engineer



Approved By

Mr. Daulat Shete
Technical Manager

End of Certificate
Calibration services for



Nishitronics
Instrumentation

► Service Engineers

► Calibration Services in Industrial Process Control

We work for Customers Satisfaction

CALIBRATION CERTIFICATE

CUSTOMER :- Mastertech Systems Anjani Niketan, Flat No-3, 2nd Floor, Viveknagar, Akurdi, Pune -411035	Page No. :- 1 of 1 ULR No. :- ULR-CC229422000002460F Diciplin :- Thermal calibration Certificate No :- NI/2206/016/001 Date of issue :- 14/06/2022 Date of receipt :- 06/06/2022 Date of calibration :- 06/06/2022 Cal. Req. No. :- NI/2206/016/001 Next Due Date :- 05/06/2023 Parameter :- Temperature Calibration method no. :- NI / CP / T / 01
Amb. Temp :- 25 ± 2 °C Rh. :- 45 to 75 %RH Location of calibration :- LAB Characteristic and :- OK Condition of items	

Details of Items

Name :- 4 -Wire RTD Sensor With Indicator	Sr.No.(Sensor) :- 867
Make (Indicator) :- Tempsens	Range :- -30 to 300 °C
Make (Sensor) :- Tempsens	L.C. :- 0.01 °C
Model (Indicator) :- Tempmet	Type :- PT 100
ID No. (Indicator) :- MTS/TIS-01	
Sr.No. (Indicator) :- 0042	

Details of Equipment used for Calibration

Name :- SSPRT WITH INDICATOR
Calibrated by :- Nishitronics Instrumentation
Certificate No. :- NI/INH/PRT/200322/001
Validity :- 19/03/2023

OBSERVATION

Cal. Point °C	Std. Reading °C	UUC Reading °C	Error In °C	Expanded Uncertainty
-30	-30.068	-29.98	0.088	± 0.06 °C
0	0.031	0.18	0.149	± 0.06 °C
100	99.869	100.06	0.191	± 0.09 °C
200	199.858	200.08	0.222	± 0.09 °C
250	249.741	250.03	0.289	± 0.09 °C

The reported measurement uncertainty is estimated at a level of confidence of approximately 95 % with a coverage factor k = 2.

Remarks :-

- 1) Result are related only to the item calibrated .
- 2) This certificate refers only to the particular items submitted for calibration .
- 3) This certificate shall not be reproduced except in full without our prior permission in writing.
- 4) The calibration results reported in this particular certificate are valid at the time of an under stated condition of measurement.
- 5) Standard used for calibration were traceable to National / International standard.
- 6) Readings given above are as on received condition of an instrument.
- 7) Immersion Depth of UUC was 160 mm in CTB9100 Oil Bath.
- 8) Length of Sensor = 400 mm.
- 9) Diameter of Sensor = 6.5 mm.

Calibrated by


(P.B.Desai)
(Technical Assistant)



Authorized Signatory


(V.B.Hingmire) / (S.B.Hingmire)
(Technical Manager)

Form No. : NI/F/7.8/T/01

Form Rev. No. : 0

Effective Form Date :20/11/2019

Issue No : 03

Issue Date :20/11/2019