

Calibration Certificate No.: TL/021/7.1.1
ULR No.: CC28402100000030F

TRUE COPY

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M/S NATIONAL CENTRE FOR QUALITY CALIBRATION 4, ABHISHREE CORPORATE PARK, NEAR SWAGAT BUNGALOW BRIS, ISKCON-AMBLI ROAD, AMBLI AHMEDABAD- 380058, GUJARAT, INDIA	J.O.NO.	: T/220/2/2113005372
	Received Date	: 04/01/2021
	Calibration Date	: 05/01/2021
	Next Call. Due On	: 04/01/2022
	Issue Date	: 05/01/2021

Sample Description :

Calibration Required At	: 400, 800, 1000, 1200 & 1500 °C
Item	: PTRH10%/PT "S" TYPE THERMOCOUPLE WITH INDICATOR
Inst. Sr. No. & Id. No.	: 32896 & NCQC/T-17
Indi. Sr. No. & Id. No.	: 16118 & NCQC/T-02
Inst. Make	: TEMPESENS
Indi. Make/Model	: BEAMEX/MC2-TE
Resolution	: 0.01 °C
Range	: 250 TO 1500 °C
Location	: At Lab
Condition of Item	: Satisfactory

Calibration Procedure The UUC was allowed to be stable at specified temperature points. The reading of Standard and UUC was recorded. This Certificate Format No. F-LAB-5 The report provides the reading and deviation. As per Work Instruction no. WI-LAB-17 Temperature (in °C) against Thermocouple reading (in mV) are calculated by using ASTM E-230/IS TABLE. Minimum Immersion Length is 100 MM

The UUC has been compared with the following working standards of sensor & measuring instrument.

Standards	Traceable To	Certificate No.	Valid Up to
SSPRT THERMOCOUPLE "S" TYPE CALSYS 1200L CALSYS 1500L PRECISION THERMOMETER	TEMPESENS, UDAIPUR NPL, NEW DELHI	TL/020/322.1.1 20050054/D1.03/C-029	01.06.2021 18.06.2022
	YMPL, UDAIPUR	YMPL/329553/117617	22.06.2022

The Standards used for calibration is traceable to National / International Standard. The results of calibration are as under : Reference junction calculated at 0 °C

Sr. No.	Standard Sensor °C	UUC		Dev. °C	Expanded uncertainty (± °C)
		mV	°C		
1	399.82	3.261	400.13	0.31	0.50
2	799.46	7.347	800.14	0.68	1.50
3	999.12	9.587	1000.02	0.90	1.50
4	1198.86	11.950	1199.97	1.11	1.50
5	1498.54	15.580	1499.85	1.31	2.70

Temperature Scale: ITS - 90

Ambient Temp. : 25±2°C

Relative Humidity : 50±20%RH

NCQC
Valid up to 04-01-2022
Reviewed

Sunil
Calibrated By

A. Parakh
Checked By

A. Parakh
Certified By
Alpesh Parakh
Technical Manager

NCQC System Certificate No. 280

Note:

- (1) The calibration results reported in this certificate are valid at the time of and under the stated condition of measurement for the particular sample.
- (2) The report shall not be reproduced except in full, without written permission of the laboratory
- (3) Coverage factor "k" = 2 at approx 95.45% confidence level.
- (4) Next Calibration Due Date mentioned as per customer requirement.