



# CALIBRATION CERTIFICATE



Work Order No. : WO/ECL/385/22-23

Certificate No. : CC/ECL/0909/22-23

Date : 16/09/2022

Date of Calibration : 19/09/2022

ULR No. : CC228722100001576F

Page No. : 1 of 3

Discipline : Mechanical Calibration (Group : Acceleration and Speed)

Calibrated for : M/s. National Centre for Quality Calibration, 4, Abhishree Corporate Park, Near Swagat Bungalow BRTS, Iskcon-Ambli Road, Ambli, Ahmedabad, Gujarat - 380

Calibrated at : IDEMI, Mumbai.

Description and Identification of Device Under Calibration	Standards Used for Calibration
Name : Digital Tachometer Manufacturer : M/s. Line Seiki Condition on receipt : No visible damage Range of Instrument : 6.0 to 15000.0 RPM (Contact Mode) 6.0 to 99999.9 RPM (Non-Contact Mode) Sr. No. : 184-0004 Model : TM-7010 ID No. : NCQC/M-154 Accuracy : $\pm 0.01\% \pm 1$ Digit	Digital Tachometer with RPM Source ID No. : IDEMI/ECL/TACHO/01 Calibration Valid up to 31/01/2023  All measurement results are traceable to the International system of units (SI), ensured by comparison, directly or indirectly with National or International standards through unbroken chain of calibration

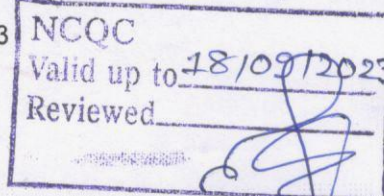
#### Ambient Conditions :

Temperature : 24.6 °C

Relative Humidity : 58 %

Remarks : Please refer page 2 to 3 for Calibration Results.

- 1) Procedure of Calibration : Above mentioned item is calibrated as per operating procedure : OP-S&R-01
- 2) The reported expanded uncertainty in measurement is stated as the combined standard uncertainty in measurement multiplied by the coverage factor  $k = 2$ , which for a normal distribution corresponds to a coverage probability of approximately 95 %.
- 3) Calibration Status : Sticker No. 909 indicating 'CAL STATUS' is affixed on instrument.
- 4) Our NABL Accreditation Certificate No. is CC - 2287, Valid up to 30/08/2023.
- 5) Next Calibration Due on : 18/09/2023



PANKAJ  
VASUDEO  
AMBEKAR

Digitally signed by  
PANKAJ VASUDEO  
AMBEKAR  
Date: 2022.10.01  
14:53:01 +05'30'

AUTHORISED SIGNATORY

#### Note:

1. This certificate refers only to the particular item(s), submitted for calibration. The certificate should not be reproduced except in full without the prior permission from the Principal Director, IDEMI, Mumbai - 400 022.
2. This is computer generated certificate and may not contain signature. Where send by email, this is signed with digital signature of authorized signatory, approved by NABL. For any queries, please quote work order number mentioned in this certificate



वैद्युतिक मापन उपयंत्र अभिकल्प संस्थान, मुंबई  
INSTITUTE FOR DESIGN OF ELECTRICAL MEASURING INSTRUMENTS, MUMBAI

भारत सरकार की सहाय्यती  
सूक्ष्म लघु एवं मध्यम उद्यम मंत्रालय  
Government of India Society

Ministry of Micro Small & medium Enterprises

स्वातंत्र्यवीर तात्या टोपे मार्ग चुनाभट्टी सायन डाकघर मुंबई

Swatantryaveer Tatya Tope Marg, Chunabhatti, Sion, P.O. Mumbai - 400 022

NCQC System Certificate No. 55

FF-LAB-003





वैद्युतिक मापन उपयंत्र अभिकल्प संस्थान, मुंबई ४०००२२  
INSTITUTE FOR DESIGN OF ELECTRICAL  
MEASURING INSTRUMENTS, MUMBAI - 400 022



Instrument Sr. No. : 184-0004  
Date of Calibration : 19/09/2022  
ULR No. : CC228722100001576F

Page No. : 2 of 3  
Certificate No. : CC/ECL/0909/22-23

Calibration Results :

**NON CONTACT MODE**

Calibration Standard		Device Under Calibration		Error		Expanded Uncertainty (±) in RPM
Range	Reading	Range	Reading	Units	% of Rdg.	
5 RPM to 200000 RPM	<b>RPM</b> 6.042	6.0 RPM to 99999.9 RPM	<b>RPM</b> 6.0	<b>RPM</b> -0.042	-0.70	0.5
	50.019		50.0	-0.019	-0.04	0.5
	100.02		100.0	-0.02	-0.02	0.5
	500.03		500.0	-0.03	-0.01	0.5
	1000.2		1000.1	-0.1	-0.010	0.5
	5000.2		5000.0	-0.2	-0.004	2
	10000		9999.8	-0.2	-0.002	3
	30001		30000.6	-0.4	-0.001	6
	40000		39999.4	-0.6	-0.001	7
	74999		74997.7	-1.3	-0.002	10
	99948		99946.1	-1.9	-0.002	23

Note : Value mentioned above is mean of 5 readings.

PANKAJ  
VASUDEO  
AMBEKAR  
Digitally signed by  
PANKAJ VASUDEO  
AMBEKAR  
Date: 2022.10.01  
14:53:25 +05'30'

Authorised Signatory



CC-2287

FF-INS-09



वैद्युतिक मापन उपयंत्र अभिकल्प संस्थान, मुंबई ४०००२२

INSTITUTE FOR DESIGN OF ELECTRICAL  
MEASURING INSTRUMENTS, MUMBAI - 400 022



Instrument Sr. No. : 184-0004  
Date of Calibration : 19/09/2022  
ULR No. : CC228722100001576F

Page No. : 3 of 3  
Certificate No. : CC/ECL/0909/22-23

Calibration Results :

**CONTACT MODE**

Calibration Standard		Device Under Calibration		Error		Expanded Uncertainty (±) in RPM
Range	Reading	Range	Reading	Units	% of Rdg.	
5 RPM to 200000 RPM	<b>RPM</b> 6.035	6.0 RPM to 15000.0 RPM	<b>RPM</b> 6.0	<b>RPM</b> -0.035	-0.58	0.5
	50.013		50.0	-0.013	-0.03	0.5
	100.01		100.0	-0.01	-0.01	0.5
	500.05		500.0	-0.05	-0.01	0.5
	5000.0		4999.8	-0.2	-0.004	2
	8000.3		8000.1	-0.2	-0.002	2
	9999.9		9999.6	-0.3	-0.003	3
	12000		11999.5	-0.5	-0.004	5

Note : 1) Value mentioned above is mean of 5 readings.

2) Calibration is carried out as per customer's requirement.

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

PANKAJ  
VASUDEO  
AMBEKAR

Digitally signed by  
PANKAJ VASUDEO  
AMBEKAR  
Date: 2022.10.01  
14:53:34 +05'30'

Authorised Signatory



CC-2287

FF-INS-09