CERTIFICATE OF CALIBRATION

ULR-CC282824000003038F

Certificate Number	CS/23/LB/MP/838-02	Date of Issue:	05.03.2024
Customer Name & Address	M/s. RS Technologies, P.No.E-227, Road No.9E, VKIA,Jaipur, Rajasthan-302 013.		
Customer Reference	Verbal		
Environmental Conditions	Temperature : (23±1.5)°C	Humidity : (50±20)%RH	
Calibration Method	As Per Work Instruction Number:	WI/RD/PR/01	
Calibrated By	B.Monisha	Calibrated at	Lab

DETAILS OF THE UNIT UNDER CALIBRATION

Description	Digital Pressure Gauge
Serial Number	74382302
Tag Number	RS/M/PG/02
Make	R&D Instruments
Model No.	DPG-60
Range	-1 to 60 bar
Resolution	0.001 bar
Accuracy	±0.1%F.S
Condition of UUC Received	Satisfactory
Date of Receipt	02.03.2024
Date of Calibration	04.03.2024
Next Calibration Due	04.03.2025

DETAILS OF THE STANDARD INSTRUMENT USED FOR CALIBRATION

Description	Pressure Calibrator	Pressure Calibrator
Make	R&D Instruments	R&D Instruments
ID No./Serial No.	P-34 / 24561712	P-22 / APC 677072014
Traceability	National Standards	National Standards
Certificate No.	CS/23/LB/MP/147-01	CS/23/LB/MP/743-01
Validity	21.06.2024	02.02.2025

Mechanical Calibration-Pressure and Vacuum

Calibration Results

Pressure:

Unit Under Calibration P_{ind} bar	Standard Instrument P_{std} bar				Mean Value MP_{std} bar
	Rising M_1	Falling M_2	Rising M_3	Falling M_4	
0.000	0.000	-0.002	-0.002	-0.001	-0.001
7.500	7.508	7.506	7.505	7.507	7.507
15.000	15.006	15.005	15.004	15.003	15.005
22.500	22.505	22.501	22.500	22.501	22.502
30.000	29.998	29.995	29.996	29.998	29.997
37.500	37.486	37.487	37.488	37.489	37.488
45.000	44.979	44.982	44.983	44.986	44.983
52.500	52.473	52.472	52.474	52.475	52.474
60.000	59.969	59.969	59.971	59.971	59.970

5, Natesan Nagar, (Near Ashtalakshmi Nagar 27th Street & behind HP Petrol Pump),
Alapakkam, Chennai-600116. Tamilnadu, INDIA, Tel.: +91-44-4283 9039 / 4284 1119
Mobile Nos.: +91-93810 38463 / 73583 93983
emails: support@rndinstruments.com / service@rndinstruments.com

P.T.O.

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Unit Under Calibration P_{ind} bar	Error ΔP bar	Zero Deviation f_0 bar	Repeatability b' bar	Hysteresis h bar	Expanded Uncertainty ± U bar
0.000	0.001	-	-	-	-
7.500	-0.007	0.002	0.001	0.0000	0.0019
15.000	-0.005	0.002	0.003	0.0010	0.0026
22.500	-0.002	0.002	0.003	0.0015	0.0035
30.000	0.003	0.002	0.002	0.0005	0.0043
37.500	0.012	0.002	0.004	0.0010	0.0059
45.000	0.017	0.002	0.006	0.0030	0.0066
52.500	0.026	0.002	0.003	0.0000	0.0068
60.000	0.030	0.002	0.004	0.0000	0.0082

Vacuum:

Unit Under Calibration P_{ind} bar	Standard Instrument P_{std} bar				Mean Value MP_{std} bar
	Rising M_1	Falling M_2	Rising M_3	Falling M_4	
0.000	0.000	-0.002	-0.002	-0.001	-0.001
-0.125	-0.126	-0.126	-0.125	-0.125	-0.126
-0.250	-0.250	-0.253	-0.252	-0.250	-0.251
-0.375	-0.376	-0.378	-0.377	-0.375	-0.377
-0.500	-0.501	-0.502	-0.501	-0.500	-0.501
-0.625	-0.627	-0.627	-0.626	-0.626	-0.627
-0.750	-0.752	-0.751	-0.752	-0.752	-0.752
-0.875	-0.875	-0.874	-0.874	-0.873	-0.874
-1.000	-0.998	-0.998	-0.997	-0.997	-0.998

R&D INSTRUMENT SERVICES CHENNAI 600 116

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Certificate Number: CS/23/LB/MP/838-02

Unit Under Calibration P_{ind} bar	Error ΔP bar	Zero Deviation f_0 bar	Repeatability b' bar	Hysteresis h bar	Expanded Uncertainty ± U bar
0.000	0.001	-	-	-	-
-0.125	0.001	0.002	0.003	0.0000	0.0023
-0.250	0.001	0.002	0.002	0.0005	0.0021
-0.375	0.002	0.002	0.002	0.0000	0.0020
-0.500	0.001	0.002	0.002	0.0000	0.0020
-0.625	0.002	0.002	0.003	0.0000	0.0025
-0.750	0.002	0.002	0.002	0.0005	0.0021
-0.875	-0.001	0.002	0.003	0.0010	0.0025
-1.000	-0.002	0.002	0.003	0.0000	0.0025

Remarks :

1) $MP_{std} = \sum mi/4$; 2) $\Delta p = P_{ind} - MP_{std}$; 3) $f_0 = \max\{|M_{2,0}-M_{1,0}|,|M_{4,0}-M_{3,0}|\}$;

4) $b' = \max\{|(M_{3,j}-M_{3,0})-(M_{1,j}-M_{1,0})|, |(M_{4,j}-M_{4,0})-(M_{2,j}-M_{2,0})|\}$;

5) $h = 1/2\ \{|(M_{2,j}-M_{1,0})-(M_{1,j}-M_{1,0})|+|(M_{4,j}-M_{3,0})-(M_{3,j}-M_{3,0})|\}$; Where, j - stands for numbers of nominal values of the pressure.

6) As per IS : 3624-1987, SI unit of Pressure is Pascal (Pa). 1 Pascal (Pa) = 10^{-5} bar.

Authorised Signatory
T. Pandi kumar
Technical Manager

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- End -

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