



ESSJAY TECHNOMEASURE PVT. LTD.

(A House of Calibration Engineering & Allied Services)

Apartment No. : D1, 3rd Floor, 36, Kantapukur 3rd Bye Lane, Howrah - 711 101

Ph.: 033 2667 0835, 9674756761, 9674756767

website : www.technomeasurenabl.com, E-mail : technomeasure@gmail.com

DOC No.: TM/CALI/04



CC-2628

Calibration Certificate



Issued to :

M.B. Control & Systems Pvt. Ltd.

31/1, Ahiripukur Road, Kolkata,

Pin: 700 019, W.B.

ULR No.: CC262824000000069F

Certificate No.: 2401006/M899/SM/01

Date : 02.01.2024

Date of Calibration	Recommended Due On (As agreed with Customer)	Page No. :
01.01.2024	01.01.2025	1 of 4

Location of Calibration

: At Lab

Date of Receipt

: 01.01.2024

Description of instrument

: Advanced Data Logger

Make :

M.B. Control & Systems Pvt. Ltd.

Model :

MB Logger 1000 Pro

Identification Number of Instrument

: Sl. No.: 2311XP00269

Basis of Calibration

: As per Work Instruction (WI- 01, Sec No.: QWI - 09)

Rev No: 5, Rev. Date: 12.12.2019

Details of Major Equipment used for Calibration

Description	Traceability Certificate No. & Issue Date	Valid upto	Calibration Agency
Multi-Product Calibrator	TSC/23-24/9619-1, Dated: 07.09.2023	04.09.2024	Transcal

Traceability: Standards used for calibration are traceable to National Standards through NABL accredited laboratory

Customer's Specification

: Not provided by the Customer.

Environmental conditions of measurement

Temperature: 25±2°C

Humidity: 30% to 75 % RH

Electro-Technical Calibration

Calibration Results

Direct Current

Range: (4 to 20) mA

L.C: 0.001 mA

Channel 1

Value on ref.standard in mA	Value on *DUC in mA	Error in mA	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
4.000	3.996	-0.0040	0.06
8.000	7.992	-0.0080	
12.000	11.991	-0.0090	
16.000	15.985	-0.0150	
20.000	19.982	-0.0180	

Calibrated By
Sutapa Manna
(Sr. Calibration Engineer)



Cont. page 2
Authorised Signatory
Ghanashyam Jana
Sr. Calibration Engineer



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Channel 2

Direct Current

Value on ref.standard in mA	Value on *DUC in mA	Error in mA	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
4.000	3.997	-0.0030	0.06
8.000	7.993	-0.0070	
12.000	11.991	-0.0090	
16.000	15.988	-0.0120	
20.000	19.985	-0.0150	

Channel 3

Direct Current

Value on ref.standard in mA	Value on *DUC in mA	Error in mA	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
4.000	3.997	-0.003	0.06
8.000	7.993	-0.007	
12.000	11.990	-0.010	
16.000	15.986	-0.014	
20.000	19.983	-0.017	

Channel 4

Direct Current

Value on ref.standard in mA	Value on *DUC in mA	Error in mA	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
4.000	3.999	-0.001	0.06
8.000	7.998	-0.002	
12.000	11.997	-0.003	
16.000	15.996	-0.004	
20.000	19.996	-0.004	

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Sutapa Manna

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Sutapa Manna
(Sr. Calibration Engineer)



Ghanashyam Jana

Authorised Signatory
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Sr. Calibration Engineer



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DC Milivolt

Range: 0 to 2000 mV, L.C: 0.001 mV

Channel 1

Value on ref.standard in mV	Value on *DUC in mV	Error in mV	Measurement Uncertainty at 95% of C.L in ($\pm$)% (coverage factor,k=2)
0.0000	0.0004	0.000	0.66
400.000	399.988	-0.012	0.57
800.00	799.826	-0.174	
1200	1199.325	-0.675	
1600	1599.258	-0.742	
2000	1999.229	-0.771	

Channel 2

DC Milivolt

Value on ref.standard in mV	Value on *DUC in mV	Error in mV	Measurement Uncertainty at 95% of C.L in ($\pm$)% (coverage factor,k=2)
0.0000	0.0003	0.000	0.66
400.000	399.992	-0.008	0.57
800.00	799.982	-0.018	
1200	1199.824	-0.176	
1600	1599.819	-0.181	
2000	1999.692	-0.308	

Channel 3

DC Milivolt

Value on ref.standard in mV	Value on *DUC in mV	Error in mV	Measurement Uncertainty at 95% of C.L in ($\pm$)% (coverage factor,k=2)
0.0000	0.0002	0.000	0.66
400.000	399.996	-0.004	0.57
800.00	799.888	-0.112	
1200	1199.784	-0.216	
1600	1599.465	-0.535	
2000	1999.378	-0.622	

Channel 4

DC Milivolt

Value on ref.standard in mV	Value on *DUC in mV	Error in mV	Measurement Uncertainty at 95% of C.L in ($\pm$)% (coverage factor,k=2)
0.0000	0.0004	0.000	0.66
400.000	399.997	-0.003	0.57
800.00	799.957	-0.043	
1200	1199.868	-0.132	
1600	1599.756	-0.244	
2000	1999.694	-0.306	

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Range: 0 to 10 V, L.C: 0.0001 V

DC Voltage

Channel 1

Value on ref.standard in V	Value on *DUC in V	Error in V	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
0.00000	0.0054	0.0054	0.01
2.00000	1.9762	-0.0238	
4.00000	3.9642	-0.0358	
8.0000	7.9526	-0.0474	
10.0000	9.9359	-0.0641	

Channel 2

DC Voltage

Value on ref.standard in V	Value on *DUC in V	Error in V	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
0.00000	0.0048	0.0048	0.01
2.00000	1.9859	-0.0141	
4.00000	3.9673	-0.0327	
8.0000	7.9547	-0.0453	
10.0000	9.9497	-0.0503	

Channel 3

DC Voltage

Value on ref.standard in V	Value on *DUC in V	Error in V	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
0.00000	0.0039	0.0039	0.01
2.00000	1.9887	-0.0113	
4.00000	3.9726	-0.0274	
8.0000	7.9669	-0.0331	
10.0000	9.9614	-0.0386	

Channel 4

DC Voltage

Value on ref.standard in V	Value on *DUC in V	Error in V	Measurement Uncertainty at 95% of C.L in (±)% (coverage factor,k=2)
0.00000	0.0058	0.0058	0.01
2.00000	1.9779	-0.0221	
4.00000	3.9757	-0.0243	
8.0000	7.9796	-0.0204	
10.0000	9.9648	-0.0352	

Remarks: 1. The Instrument is visually checked & found OK, *DUC = Device Under Calibration,

2. This calibration certificate refers to the value observed at the time of and under the stated conditions measured

3. This certificate should not be produced other than a full with written approval from the head of the calibration Laboratory

4. The above results relate only to the item calibration.

-----END OF CERTIFICATE-----

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