Print Date: 22/08/2023

CALIBRATION REPORT

STATUS : PASSED

DESCRIPTION : Single Channel Micropipette 2-20 µl

DEVICE ID : 23305243 **CALIBRATION DATE :** 17/08/2023 12:09 PM

Method ID : VV/2-20 **TERMINAL ID :** 19

ULR No. : CC270523000212143F **Location :** Lucknow (Permanent Lab)

ENVIRONMENTAL FACTORS

TEMP : 25.00 °C **Z FACTOR :** 1.0038 mm³/mg **BARO. PRESSURE :** 80.00 KPa **REL. HUMIDITY :** 60.00%

CALIBRATION STATISTICS

Vol (µl)	No	Cum Wt (mg)	Vol (µl)	Mean (µl)	SD (µl)	Inaccuracy E%		Imprecision CV%		
						Actual	Target	Actual	Target	Status
2.000	1	2.000	2.008	1.907	0.101	4.633	8.00	< 4.00	4.00	PASSED
	2	3.900	1.907							
	3	5.700	1.807							
10.000	1	9.900	9.938	9.938	0.000	0.620	1.60	< 0.80	0.80	PASSED
	2	19.800	9.938							
	3	29.700	9.938							
20.000	1	20.000	20.076	20.076	0.100	0.380	0.80	< 0.40	0.40	PASSED
	2	39.900	19.976							
	3	60.000	20.176							

Incharge QC

Volume	Above 10 µl to 100 µl	Above 100 µl to 1000 µl	Above 1 ml to 10 ml	Above 10 ml to 100 ml
Uncertainty (k=2)	0.1 µl	0.1 µl	0.1 µl	4 µl

- Specifications conform to ISO:8655 standards.
- Each instrument is individually calibrated on electronic balance.
- 750 mmHg = 99.98 kPa.
- Weight in mg or g.
- Volume, Mean & S.D. in ml or µl.

Reference standard
The instrument is calibrated using a standard electronic balance with calibration traceability to NPL.

The reported expanded uncertainty of measurement is calculated by multiplying the standard uncertainty of measurement by the coverage factor k=2, which for normal distribution corresponds to a coverage probability of approximately 95%.

Print Date: 17/08/2023

CALIBRATION REPORT

STATUS : PASSED

DESCRIPTION : Single Channel Micropipette 20-200 µl

DEVICE ID : 23305083 **CALIBRATION DATE :** 17/08/2023 12:52 PM

Method ID : VV/20-200 **TERMINAL ID :** 19

ULR No. : CC270523000212166F **Location :** Lucknow (Permanent Lab)

ENVIRONMENTAL FACTORS

TEMP : 25.00 °C **Z FACTOR :** 1.0038 mm³/mg **BARO. PRESSURE :** 80.00 KPa **REL. HUMIDITY :** 60.00%

CALIBRATION STATISTICS

Vol (µl)	No	Cum Wt (mg)	Vol (µl)	Mean (µl)	SD (µl)	Inaccuracy E%		Imprecision CV%		
						Actual	Target	Actual	Target	Status
20.000	1	20.200	20.277	20.310	0.058	1.552	6.00	< 2.00	2.00	PASSED
	2	40.400	20.277							
	3	60.700	20.377							
100.000	1	99.600	99.978	100.079	0.266	0.079	1.20	< 0.40	0.40	PASSED
	2	199.100	99.878							
	3	299.100	100.380							
200.000	1	199.300	200.057	200.693	0.553	0.347	0.60	< 0.20	0.20	PASSED
	2	399.600	201.061							
	3	599.800	200.961							

Incharge QC

Volume	Above 10 µl to 100 µl	Above 100 µl to 1000 µl	Above 1 ml to 10 ml	Above 10 ml to 100 ml
Uncertainty (k=2)	0.1 µl	0.1 µl	0.1 µl	4 µl

- Specifications conform to ISO:8655 standards.
- Each instrument is individually calibrated on electronic balance.
- 750 mmHg = 99.98 kPa.
- Weight in mg or g.
- Volume, Mean & S.D. in ml or µl.

Reference standard
The instrument is calibrated using a standard electronic balance with calibration traceability to NPL.

The reported expanded uncertainty of measurement is calculated by multiplying the standard uncertainty of measurement by the coverage factor k=2, which for normal distribution corresponds to a coverage probability of approximately 95%.

Print Date: 12/08/2023

CALIBRATION REPORT

STATUS : PASSED

DESCRIPTION : Single Channel Micropipette 100-1000 µl

DEVICE ID : 23304985 **CALIBRATION DATE :** 12/08/2023 9:32 AM

Method ID : VV/100-1000 **TERMINAL ID :** 52

ULR No. : CC270523000211604F **Location :** Lucknow (Permanent Lab)

ENVIRONMENTAL FACTORS

TEMP : 25.00 °C **Z FACTOR :** 1.0038 mm³/mg **BARO. PRESSURE :** 80.00 KPa **REL. HUMIDITY :** 60.00%

CALIBRATION STATISTICS

Vol (µl)	No	Cum Wt (mg)	Vol (µl)	Mean (µl)	SD (µl)	Inaccuracy E%		Imprecision CV%		
						Actual	Target	Actual	Target	Status
100.000	1	100.500	100.882	100.916	0.153	0.916	6.00	< 2.00	2.00	PASSED
	2	201.200	101.083							
	3	301.600	100.782							
500.000	1	498.000	499.892	501.498	1.395	0.300	1.20	< 0.40	0.40	PASSED
	2	998.500	502.402							
	3	1498.800	502.201							
1000.000	1	999.600	1003.398	1003.867	0.900	0.387	0.60	< 0.20	0.20	PASSED
	2	2000.700	1004.904							
	3	3000.200	1003.298							

Incharge QC

Volume	Above 10 µl to 100 µl	Above 100 µl to 1000 µl	Above 1 ml to 10 ml	Above 10 ml to 100 ml
Uncertainty (k=2)	0.1 µl	0.1 µl	0.1 µl	4 µl