

CALIBRATION REPORT



DESCRIPTION : Single Channel Micropipette 2-20 μ l

DEVICE ID : 23106758

CALIBRATION DATE : 17/02/2023 12:04 PM

Method ID : VV/2-20

TERMINAL ID : 19

ULR No. : CC270523000182529F

Location : Lucknow (Permanent Lab)

ENVIRONMENTAL FACTORS

TEMP : 25.00 $^{\circ}$ C **Z FACTOR :** 1.0026 mm³/mg **BARO. PRESSURE :** 80.00 KPa **REL. HUMIDITY :** 60.00%

CALIBRATION STATISTICS

Vol (μ l)	No	Cum Wt (mg)	Vol (μ l)	Mean (μ l)	SD (μ l)	Inaccuracy E%		Imprecision CV%		Status
						Actual	Target	Actual	Target	
2.000	1	2.000	2.005	1.938	0.058	3.083	8.00	< 4.00	4.00	PASSED
	2	3.900	1.905							
	3	5.800	1.905							
10.000	1	10.000	10.026	9.959	0.058	0.407	1.60	< 0.80	0.80	PASSED
	2	19.900	9.926							
	3	29.800	9.926							
20.000	1	20.000	20.052	19.952	0.101	0.242	0.80	< 0.40	0.40	PASSED
	2	39.800	19.851							
	3	59.700	19.952							



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

- * Specifications conform to ISO:8655 standards.
- * Each instrument is individually calibrated on electronic balance.
- * 750 mm-Hg = 99.98 kPa.
- * Weight in mg or g.
- * Volume in ml or μ l

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%.



CALIBRATION REPORT

STATUS : PASSED

DESCRIPTION : Single Channel Micropipette 100-1000 µl

DEVICE ID : 22305183

CALIBRATION DATE : 16/02/2023 9:41 AM

Method ID : VV/100-1000

TERMINAL ID : 19

ULR No. : CC270522000147550F

Location : Lucknow (Permanent Lab)

ENVIRONMENTAL FACTORS

TEMP : 25.00 °C **Z FACTOR :** 1.0026 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%		Status
						Actual	Target	Actual	Target	
100.000	1	99.700	99.959	98.722	1.574	1.278	6.00	< 2.00	2.00	PASSED
	2	198.700	99.257							
	3	295.400	96.951							
500.000	1	497.100	498.392	499.361	0.910	0.128	1.20	< 0.40	0.40	PASSED
	2	995.300	499.495							
	3	1494.200	500.197							
1000.000	1	997.100	999.692	999.826	0.613	0.017	0.60	< 0.20	0.20	PASSED
	2	1995.000	1000.495							
	3	2991.700	999.291							

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	Based on data in the records
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%.

CALIBRATION REPORT

STATUS : PASSED



ISO/IEC 17025:2017
Certificate No.: CC-2705

DESCRIPTION : Variable Volume Pipette VV-200 (20-200 µl)

DEVICE ID : 22106104

CALIBRATION DATE : 16/02/2023 10:01 AM

Method ID : VV/20-200

TERMINAL ID : 52

ULR No. : CC270522000117170F

Location : Lucknow (Permanent Lab)

ENVIRONMENTAL FACTORS

TEMP : 25.00 °C **Z FACTOR :** 1.0026 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%		Status
						Actual	Target	Actual	Target	
20.000	1	20.000	20.052	20.052	0.000	0.260	6.00	< 2.00	2.00	PASSED
	2	40.000	20.052							
	3	60.000	20.052							
100.000	1	99.200	99.458	99.491	0.058	0.500	1.20	< 0.40	0.40	PASSED
	2	198.500	99.558							
	3	297.700	99.458							
200.000	1	199.300	199.818	199.384	0.380	0.308	0.60	< 0.20	0.20	PASSED
	2	398.000	199.217							
	3	596.600	199.116							



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	Based on data in the records.

- * 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%.



CALIBRATION REPORT

Print Date: 20/02/2023
STATUS : PASSED

DESCRIPTION : Single Channel Micropipette 100-1000 μ l
DEVICE ID : 23106722
METHOD ID : VV/100-1000
ULR No. : CC270523000182769F
CALIBRATION DATE : 20/02/2023 10:12 AM
TERMINAL ID : 19
Location : Lucknow (Permanent Lab)

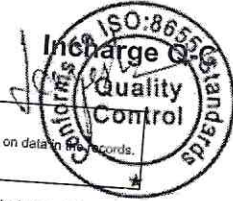
ENVIRONMENTAL FACTORS

TEMP : 25.00 °C **Z FACTOR :** 1.0026 mm³/mg **BARO. PRESSURE :** 80.00 KPa **REL. HUMIDITY :** 60.00%

CALIBRATION STATISTICS

Vol (μ l)	No	Cum Wt (mg)	Vol (μ l)	Mean (μ l)	SD (μ l)	Inaccuracy E%		Imprecision CV%		Status
						Actual	Target	Actual	Target	
100.000	1	96.200	96.450	96.450	1.003	3.550	6.00	< 2.00	2.00	PASSED
	2	193.400	97.453							
	3	288.600	95.448							
500.000	1	498.600	499.896	499.495	1.061	0.101	1.20	< 0.40	0.40	PASSED
	2	995.600	498.292							
	3	1494.600	500.297							
1000.000	1	998.800	1001.397	1000.227	1.109	0.023	0.60	< 0.20	0.20	PASSED
	2	1995.400	999.191							
	3	2992.900	1000.093							

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



- * Specifications conform to ISO:8655 standards.
- * Each instrument is individually calibrated on electronic balance.
- * 750 mmHg = 99.98 kPa.
- * Weight in mg or g.
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Reference standard
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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%.