



CALIBRATION CERTIFICATE

Certificate Number: H00G83AVPG-0

Order Number: 222-766

RAININ
Pipetting 360°

Customer Houston Forensic Science Center
Jennifer O'Callaghan
500 Jefferson St
Houston, TX 77002-7300

Location 500 Jefferson St

Serial Number PU08933

Model THERMO FINNPIPETTE F2 20-200 YELLOW

Next Service 31.Oct.2024

Service Plan Onsite: Single Channel PM, 3x5 AR

Inspection Over All Condition: Good

Preventive Maintenance: Piston cleaned and re-greased
Adjustment: No-Adjustment made

As left-Passed Steven Murray 30.Oct.2023

Conditions	Humidity	Start End 49.0 % 49.0 %	Air Temperature	Start End 19.2 °C 19.2 °C	Z-Factor 1.0027 µl/mg
	Air Pressure	1012.1 hPa 1012.1 hPa	Water Temperature	19.2 °C 19.2 °C	
Equipment	Balance	C132316237Next Cal. (30.Nov.2023)Readability (0.0001 g)			Specification Type Custom
	Climate Monitor	Bar. pressure abs. air pressure (2112149)Next Cal. (01.Dec.2023) Humidity (2112149)Next Cal. (01.Dec.2023) Temp (2112149)Next Cal. (01.Dec.2023)			Pipette Tip Customer Supplied

Test Volume (µl)	Weighings				
	1	2	3	4	5
20.0 µl	19.9 mg	20.5 mg	20.5 mg	20.2 mg	20.2 mg
100.0 µl	99.7 mg	99.9 mg	99.4 mg	99.6 mg	99.9 mg
200 µl	200.3 mg	199.8 mg	199.6 mg	199.4 mg	199.5 mg

Test Volume (µl)	Mean Volume (µl)	Systematic Error				Random Error				Expanded Uncertainty (µl)	Status
		Error (µl)	Limit (+/- µl)	Error (%)	Limit (+/- %)	Error (µl)	Limit (µl)	Error (CV%)	Limit (%)		
		(µl)	(+/- µl)	(%)	(+/- %)	(µl)	(µl)	(CV%)	(%)		
20.0	20.31	0.31	0.60	1.574	3.0	0.25	0.60	1.239	3.0	0.73 µl (k=2.65)	Passed
100.0	99.97	-0.03	3.0	-0.03081	3.0	0.21	3.0	0.2128	3.0	0.61 µl (k=2.52)	Passed
200	200.3	0.26	6.0	0.1296	3.0	0.36	6.0	0.1784	3.0	1.1 µl (k=2.87)	Passed

As left History



Syst. Error 07/21 10/2101/2204/2207/2210/2201/2304/2307/23 10/23
Rand. Error Pass Pass Pass Pass Pass Pass Pass Pass Pass Pass



Syst. Error 07/21 10/2101/2204/2207/2210/2201/2304/2307/23 10/23
Rand. Error Pass Pass Pass Pass Pass Pass Pass Pass Pass Pass



Syst. Error 07/21 10/2101/2204/2207/2210/2201/2304/2307/23 10/23
Rand. Error Pass Pass Pass Pass Pass Pass Pass Pass Pass Pass



Authorized Signatory, Steven Murray
30.Oct.2023

METTLER TOLEDO
ACCREDITED LABORATORY
7500 Edgewater Drive
Oakland, CA 94621

This calibration covered by this certificate is in accordance with ISO 8655-7:2022 and PS-125. Its measurements are traceable to SI through N.I.S.T. This laboratory has been accredited by A2LA for the requirements of ISO/IEC 17025:2017. The reported expanded uncertainty of measurement (U) is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95 %. Statement of compliance does not include the measurement of uncertainty. Mettler-Toledo Rainin LLC grants permission to reproduce this document in full only. ©2020 Mettler-Toledo Rainin, LLC