Pipette Performance Data Sheet





Multipette® M4 – Multi-Dispenser

Say goodbye to tedious, long serial pipetting tasks! The Multipette M4 from Eppendorf is ideal for repetitive dispensing of volumes in long series without the need for repeated liquid aspiration. In combination with Combitips® advanced dispenser tips, even viscous or volatile liquids that are difficult to pipette are no problem for the Multipette. With hermetically sealed tips, the Multipette/Combitips positive displacement pipetting system also offers a high level of safety for handling of infectious, toxic or radioactive liquids.

Features

> Mechanical positive displacement multi-dispenser: fill the tip once and dispense up to 100 times without a refill
> Automatic Combitips® advanced recognition eliminates time consuming volume calculations
> Easy-to-read display guarantees stress-free and intuitive operation with a digital display of the dispensing volume
> Integrated »Sleep« function switches the instrument off, when it is not being used, thus reducing energy consumption
> Stress-free work via integrated step counter: dispensing procedures can be continued error free after an interruption or distraction
> Wide dispensing range: 1 µL to 10 mL for flexible operation
> Fully emptied Combitips® advanced tip can be easily ejected with one hand using the operating lever
> Perfect for viscous or foaming solutions and liquids with high vapor pressure through positive displacement principle
> Safe handling of toxic, radioactive or infectious material
> Eco-conscious production: Multipette® M4 and Combitips® advanced tips are ACT®-labeled to help you make an informed choice when it comes to sustainability

Technical Specifications

Intended use	Manual dispenser for general laboratory use. Intended for dispensing liquids in the volume range of 1 µL – 10 mL in combination with a matching Combitips® advanced or ViscoTip® dispenser tip.
Pipetting type	Positive displacement dispenser
Channel options	1
Volume range	1 µL – 10,000 µL (depending on tip)
Volume increments	1 µL – 500 µL (depending on tip)
Operation	Mechanical; with digital display for volume and steps
Battery (for display)	Button cell CR2032 (3V)
Autoclavable	No
UV resistance	Yes (254 nm)
Consumables	> Combitips® advanced in 9 different volume sizes and 4 purity grades > ViscoTip® for highly viscous liquids
Conforms with	ISO 8655
Storage accessories	> Pipette Holder for Carousel, Stand or wall mounting (included) > Pipette Carousel for 6 pipettes (sold separately) > Pipette Stand (sold separately)
Storage & transport conditions	> Temperature: -25 °C – 60 °C > Humidity: 10 % – 95 % > Atmospheric pressure: 300 hPa – 1060 hPa
Operating conditions	> Temperature: 5 °C – 40 °C > Humidity: 10 % – 95 % > Atmospheric pressure: 795 hPa – 1060 hPa
Others	> Designed according to the Eppendorf PhysioCare Concept® for optimal ergonomics > Intuitive volume selection dial to set 20 different volume settings/tip > Motion sensor: switches off the M4 display when not in use

Applications

> Repetitive dispensing of volumes in long series such as tube or plate filling, aliquoting reagents and kit usage
> Safe dispensing of toxic, radioactive and other hazardous liquids
> Precise and accurate dispensing of viscous solutions (e.g. glycerol) or liquids with high vapor pressure (e.g. ethanol)

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Technical specifications are subject to change. Errors and omissions excepted.

Dimensions

Length	20 cm
Weight	105 g
Packaging (W x H x D)	27.6 cm x 6.4 cm x 15.6 cm
Shipping weight	405 g

Measurement Deviations

Multipette® M4 with Combitips® advanced

Tip size	Color code	Min. volume	Max. volume	Increment	Volume	Systematic error[1)]	Random error[1)]
0.1 mL	☐ white	1 µL	20 µL	1 µL	1 µL	±8.0 %	±13.0 %
					2 µL	±1.6 %	±3.0 %
					10 µL	±1.2 %	±2.4 %
					20 µL	±1.0 %	±2.0 %
0.2 mL	light blue	2 µL	40 µL	2 µL	2 µL	±6.0 %	±8.0 %
					4 µL	±1.3 %	±2.0 %
					20 µL	±0.8 %	±1.5 %
					40 µL	±0.8 %	±1.5 %
0.5 mL	violet	5 µL	100 µL	5 µL	5 µL	±4.0 %	±8.0 %
					10 µL	±0.9 %	±1.5 %
					50 µL	±0.8 %	±0.8 %
					100 µL	±0.8 %	±0.6 %
1 mL	yellow	10 µL	200 µL	10 µL	10 µL	±4.0 %	±8.0 %
					20 µL	±0.9 %	±0.9 %
					100 µL	±0.6 %	±0.6 %
					200 µL	±0.6 %	±0.4 %
2.5 mL	green	25 µL	500 µL	25 µL	25 µL	±4.0 %	±8.0 %
					50 µL	±0.8 %	±0.8 %
					250 µL	±0.6 %	±0.6 %
					500 µL	±0.5 %	±0.3 %
5 mL	blue	50 µL	1.000 µL	50 µL	50 µL	±3.0 %	±5.0 %
					100 µL	±0.6 %	±0.6 %
					500 µL	±0.5 %	±0.5 %
					1.000 µL	±0.5 %	±0.25 %
10 mL	orange	100 µL	2.000 µL	100 µL	100 µL	±3.0 %	±4.0 %
					200 µL	±0.5 %	±0.6 %
					1.000 µL	±0.5 %	±0.4 %
					2.000 µL	±0.5 %	±0.25 %
25 mL	red	250 µL	5.000 µL	250 µL	250 µL	±3.0 %	±3.0 %
					500 µL	±0.4 %	±0.6 %
					2.500 µL	±0.3 %	±0.5 %
					5.000 µL	±0.3 %	±0.25 %
50 mL	light gray	500 µL	10.000 µL	500 µL	500 µL	±6.0 %	±10.0 %
					1.000 µL	±0.3 %	±0.5 %
					5.000 µL	±0.3 %	±0.5 %
					10.000 µL	±0.3 %	±0.25 %

[1)] The data for systematic and random errors, according to EN ISO 8655, only apply if original Combitips advanced are used.
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