

Pipette Performance Data Sheet



Technical Specifications

Intended use	Handheld electronic dispenser for general laboratory use. Intended for dispensing liquids in the volume range of 1 µL – 50 mL in combination with a matching Combitips® advanced or ViscoTip® dispenser tip.
Pipetting type	Positive displacement dispenser
Channel options	1
Volume range	1 µL – 50,000 µL (depending on tip)
Volume increments	0.1 µL – 50 µL (depending on tip)
Operation	Electronic
Pipetting modes	> 3 with Multipipette E3 > 7 with Multipipette E3x
Aspiration & dispensing speed	8 levels
Display languages	Chinese, Dutch, English, French, German, Italian, Japanese, Portuguese, Spanish
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
Power supply	Power supply/mains with plug adapters included (100-240 V ± 10 %, 50-60 Hz)
Battery type	Rechargeable lithium ion (3.7 V)
Charging ports	> Connector socket for plug > Charging contacts for Carousel or Stand
Interface	Micro USB (for software updates)
Storage accessories	> Charger Stand (incl. in bundle variants) > Charger Carousel for 6 pipettes (with optional charger shell, sold separately) > Pipette Holder for Carousel, Stand or wall mounting (sold separately, without charging feature)
Operating conditions	> Temperature: 5 °C - 40 °C > Humidity: 10 % - 95 % > Atmospheric pressure: 795 hPa - 1060 h
Others	> Designed according to the Eppendorf PhysioCare Concept® for optimal ergonomics > Color display with wide viewing angle; all parameters visible at one glance > Motion sensor: switches off the E3/E3x when not in use > Pipette software updates available via www.eppendorf.com/software-downloads

Multipipette® E3/E3x

Dispense easily and precisely, regardless of liquid properties with the Multipipette E3/E3x electronic multi-dispenser pipettes. Fill plates or long series of tubes without strain thanks to the light weight and easy operation of this repeater pipette. Used with Combitips® advanced dispenser tips or ViscoTip® for highly viscous liquids.

Features

- > Electronic hand dispenser with several functions e.g. for dilution series, titration, automatic dispensing into microplates and vessel series
- > Automatic Combitips® advanced recognition: Eliminates time-consuming volume calculations, avoiding incorrect dispensing volumes
- > Accurate, contamination-free dispensing of viscous solutions (e.g., glycerol), high vapor pressure liquids (e.g., ethanol), and hazardous samples via positive displacement principle
- > Motor-driven operation: Reduces the human error to a minimum and minimizes risks of repetitive strain injuries (RSI)
- > Speed adjustment: Program aspiration and dispensing speed to meet your throughput, precision and accuracy goals while also preventing splashing
- > Ergonomic one-button tip ejector: For one-handed operation and contact-free Combitips® advanced pipette tip ejection
- > Increase your efficiency when filling plates and series of tubes: Fill the tip once and dispense up to 100 times without a refill
- > 1 µL to 50 mL dispensing range providing up to 5,000 dispensing volumes with increments as low as 100 nanoliters
- > Eco-conscious production: ACT®-labeled to help you make an informed choice when it comes to sustainability

Applications

- > Dispensing (**Dis**) or Automatic dispensing (**Ads**) for repetitive aliquoting of set volumes to fill tubes/plates
- > Pipetting (**Pip**) for refilling of liquids
- > Sequential dispensing (**Seq**) to create dilution series¹⁾
- > Aspiration (**Asp**) for pooling of supernatants from different vessels¹⁾
- > Aspirate and dispensing (**A/D**) for pooling and volume determination with subsequent dispensing¹⁾
- > Titration (**Ttr**) for controlled dropwise dispensing and concentration determination¹⁾

Dimensions

Length	221 mm
Weight	190 g
Packaging (W x H x D)	31.4 cm x 10.9 cm x 15.7 cm
Shipping weight	388 g

¹⁾ Feature only available with Multipipette E3x
Technical specifications are subject to change. Errors and omissions excepted.

Measurement Deviations

Multipette® E3/E3x 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	100 µL	0.1 µL	1 µL	±11.0 %	±14.0 %
					10 µL	±1.6 %	±2.5 %
					50 µL	±1.0 %	±1.5 %
					100 µL	±1.0 %	±0.5 %
0.2 mL	■ light blue	2 µL	200 µL	0.2 µL	2 µL	±4.0 %	±5.5 %
					20 µL	±1.3 %	±1.5 %
					100 µL	±1.0 %	±1.0 %
					200 µL	±1.0 %	±0.5 %
0.5 mL	■ violet	5 µL	500 µL	0.5 µL	5 µL	±3.0 %	±6.0 %
					50 µL	±0.9 %	±0.8 %
					250 µL	±0.9 %	±0.5 %
					500 µL	±0.9 %	±0.3 %
1 mL	■ yellow	10 µL	10 mL	1 µL	10 µL	±3.5 %	±7.0 %
					100 µL	±0.9 %	±0.55 %
					500 µL	±0.6 %	±0.30 %
					1.000 µL	±0.6 %	±0.20 %
2.5 mL	■ green	25 µL	2.5 mL	2.5 µL	25 µL	±2.0 %	±3.5 %
					250 µL	±0.8 %	±0.45 %
					1.250 µL	±0.5 %	±0.30 %
					2.500 µL	±0.5 %	±0.15 %
5 mL	■ blue	50 µL	5 mL	5 µL	50 µL	±2.5 %	±6.0 %
					500 µL	±0.8 %	±0.35 %
					2.500 µL	±0.50 %	±0.25 %
					5.000 µL	±0.50 %	±0.15 %
10 mL	■ orange	100 µL	10 mL	10 µL	100 µL	±1.5 %	±3.5 %
					1.000 µL	±0.5 %	±0.25 %
					5.000 µL	±0.4 %	±0.25 %
					10.000 µL	±0.4 %	±0.15 %
25 mL	■ red	250 µL	25 mL	25 µL	250 µL	±2.5 %	±3.0 %
					2.500 µL	±0.3 %	±0.35 %
					12.500 µL	±0.3 %	±0.25 %
					25.000 µL	±0.3 %	±0.15 %
50 mL	■ light gray	500 µL	50 mL	50 µL	500 µL	±2.0 %	±3.0 %
					5.000 µL	±0.3 %	±0.50 %
					25.000 µL	±0.3 %	±0.20 %
					50.000 µL	±0.3 %	±0.15 %

¹⁾ The data for systematic and random errors, according to EN ISO 8655, only apply if original Combitips advanced are used. Technical specification are subject to change. Errors and omissions excepted.

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