

Pipette Performance Data Sheet



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⁾

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

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

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

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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