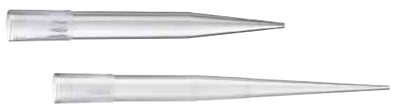
Liquid Handling



Model	Eppendorf Research® plus	Eppendorf Reference® 2	Eppendorf Xplorer®/Xplorer plus
Page(s)	**27**	**34**	**37**
Product type	Pipette	Pipette	Pipette
Operating mode	Manual	Manual	Electronic
Pipetting type	Air-cushion	Air-cushion	Air-cushion
Positioning	Ultra light weight and pipetting forces for advanced ergonomics	Reliability in robustness and results	Intuitive and fast pipetting
Application	Pipetting of aqueous liquids, two-button operation	Pipetting of aqueous liquids, single-button operation	Pipetting of aqueous liquids
Volume range	0.1 µL – 10 mL	0.1 µL – 10 mL	0.5 µL – 10 mL
Available options	1-channel 16-channel 8-channel 24-channel 12-channel	1-channel 8-channel 12-channel	1-channel 16-channel 8-channel 24-channel 12-channel
RFID tracking	Yes (read option)	Yes (read and write option)	Yes (read and write option)
Autoclavable	Yes	Yes	Yes (lower part)
Consumables	epT.I.P.S.® and other pipette tips	epT.I.P.S.® and other pipette tips	epT.I.P.S.® and other pipette tips
Purity grades of consumables	> Eppendorf Quality™ > PCR clean and sterile > Biopur® > Forensic DNA Grade	> Eppendorf Quality™ > PCR clean and sterile > Biopur® > Forensic DNA Grade	> Eppendorf Quality™ > PCR clean and sterile > Biopur® > Forensic DNA Grade



Varipette®	Multipette® M4	Multipette® E3/E3x
76	**68**	**70**
Pipette	Dispenser	Dispenser
Manual	Manual	Electronic
Positive displacement	Positive displacement	Positive displacement
Fault tolerant pipetting of large volumes, independent of external effects	Time saving by acceleration of long pipetting series with low outside fault effects	Time saving by acceleration of long pipetting series, with highest volume flexibility and lowest outside fault effects
Contamination-free pipetting of aqueous, viscous and volatile liquids	Contamination-free dispensing (up to 100 steps per Combitips Tip filling) of aqueous, solutions and problem liquids (e.g., viscous, volatile, dense...)	Contamination-free dispensing (up to 100 steps per Combitips Tip filling) of aqueous, solutions and problem liquids (e.g., viscous, volatile, dense...)
1 – 10 mL	1 µL – 10 mL	1 µL – 50 mL
1-channel	1-channel	1-channel
No	Yes (read option)	Yes (read and write option)
No	No	No
Varitips	Combitips advanced®	Combitips advanced®
> Eppendorf Quality™	> Eppendorf Quality™ > PCR clean > Biopur® > Forensic DNA Grade	> Eppendorf Quality™ > PCR clean > Biopur® > Forensic DNA Grade




Model	epT.I.P.S.	epT.I.P.S.® Long	ep Dualfilter T.I.P.S.	ep Dualfilter T.I.P.S. SealMax
Page(s)	**48**	**51**	**52**	**53**
Applications	> Pipetting liquids > Dispensing liquids > Mixing liquids > Filling plates and reaction vessels > For applications in 384-microplate format we recommend using 16- or 24-channel pipettes together with epT.I.P.S.® 384		> DNA applications (e.g. PCR) > RNA applications (e.g. gene expression analysis) > Protein applications (e.g. antibody research) > Cell culture applications (e.g. media) > Applications with radio actives > All applications which use aerosol[1] binding liquids	

[1] An aerosol is a colloid of fine solid particles or liquid droplets in air or another gas.



epT.I.P.S.® LoRetention	ep Dualfilter T.I.P.S.® LoRetention	GELoader®	Microloader™
54	**54**	**61**	**61**
> Cell culture (media) > Genomics: PCR, RT-PCR, qPCR and all other types of PCR > Enzymatic reactions (restriction decomposition, ligation) > Isolation and purification of nucleic acid > Gel electrophoresis (e.g., prefabricated DNA ladders) typical detergents: SDS, Triton®, X-100, Brij® 35, Tween® 20, CHAPS > Proteomics (all types of protein examinations) > Protein isolation and purification > NGS library preparation		> Gel electrophoresis > Loading of samples onto polyacrylamide gels > Handling of smallest volumes	> Pipette tip for back-filling of Femtotips and other microcapillaries

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On page 372 you will find detailed information on services for these products!

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Liquid Handling

Model	Varispenser® 2/Varispenser® 2x	Eppendorf Top Buret™
Page(s)	**80**	**82**
Product type	Bottletop dispenser	Bottle-top burette
Operating mode	Manual	Manual
Pipetting type	Positive displacement	Positive displacement
Positioning	Varispenser 2 and 2x bottletop dispensers combine trusted technology with improved benefits for safe and easy dispensing of liquids without compromise	Continuously and pulse-free manual titration
Application	Single stroke dispensing of lyes, acids, bases, aqueous liquids or solvents	Titration of aqueous liquids
Volume range	0.2 – 100 mL	0.1 – 999.9 mL
Available options	1-channel	1-channel
RFID tracking	No	No
Autoclavable	Yes	No
Consumables	–	–
Purity grades of consumables	–	–

Model	Combitips advanced®
Page(s)	**73**
Applications	> Positive displacement principle (comparable to a syringe) > High-precision dispensing regardless of the physical properties of the liquid (e.g., viscosity, volatility, density, temperature...) > Prevents aerosol contamination with hermetically sealed piston for secure dispensing > Provides protection from radioactive and toxic substances > Quick dispensing of long series with precise, repeated dispensing of identical volumes (with Multipette hand dispensers)

Easypet® 3	Pipet Helper®	epMotion® 96/epMotion® 96xl with 2-position slider
77	**79**	**84**
Pipette controller	Pipette controller	Semi-automated Pipette
Electronic	Manual	Electronic
Air-cushion	Air-cushion	Air-cushion
Overall ergonomic concept with new speed control for stress-free pipetting	A perfect instrument for inexperienced users because of its robust and intuitive design	Intuitive and fast pipetting in 96 and 384 format
Pipetting of aqueous liquids with serological and volumetric pipettes	Pipetting of aqueous liquids with serological and volumetric pipettes	Pipetting of aqueous liquids
0.1 – 100 mL	0.1 – 100 mL	0.5 – 300 µL/5 – 1,000 µL
1-channel	1-channel	96-channel
Yes (read option)	No	No
No (yes: pipette adapter and aspirating cone)	Yes	No
Eppendorf Serological Pipettes and other volumetric and serological pipettes	Eppendorf Serological Pipettes and other volumetric and serological pipettes	epT.I.P.S.® motion reload system
> Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free. Non-cytotoxic.	> Sterile, pyrogen-, DNase-, RNase-, human and bacterial DNA-free. Non-cytotoxic.	> Eppendorf Quality™ > PCR clean > PCR clean and sterile

ViscoTip®	Eppendorf Varitips®
72	**76**
> Positive displacement principle (comparable to a syringe) > For highly viscous liquids > Quick dispensing of long series with precise, repeated dispensing of identical volumes (with Multipette hand dispensers)	> Pipetting aqueous solutions > Extraction of liquids from deep receptacles > Transfer of organic liquids (alcohols, org. acids etc.) > Transfer of solvents with high vapor pressure (e.g. diethyl ether) > Transfer of liquids with high density > Transfer of viscous liquids

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Technical specifications subject to change.

Liquid Handling

Model	ep*Motion*® 5070	ep*Motion*® 5070f	ep*Motion*® 5073l	ep*Motion*® 5073m
Page(s)	**85**	**85**	**86**	**86**
Dimensions (W × D × H)	65 × 48 × 63 cm / 26 × 19 × 25 in	65 × 48 × 63 cm / 26 × 19 × 25 in	65 × 61 × 67 cm / 26 × 24 × 27 in	65 × 61 × 67 cm / 26 × 24 × 27 in
Weight w/o accessories	45 kg	33 kg	50 kg	57 kg
Max. power consumption	150 W	150 W	600 W	600 W
Power supply	100 – 240 V ±10 %, 50 – 60 Hz ±5 %	100 – 240 V ±10 %, 50 – 60 Hz ±5 %	100 – 240 V ±10 %, 50 – 60 Hz ±5 %	100 – 240 V ±10 %, 50 – 60 Hz ±5 %
Optical confocal infrared detector	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities
SLAS/ANSI positions	4	4	6	6
Volume range	0.2 µL – 1 mL	0.2 µL – 1 mL	0.2 µL – 1 mL	0.2 µL – 1 mL
Random measurement error	±0.1 mm	±0.1 mm	±0.1 mm	±0.1 mm
Systematic measurement error	±0.3 mm	±0.3 mm	±0.3 mm	±0.3 mm
Dispensing tool[1)2)]				
Random measurement error (1 µL)	≤3 %	≤3 %	≤3 %	≤3 %
Systematic measurement error (1 µL)	±5 %	±5 %	±5 %	±5 %
Random measurement error (50 µL)	≤0.4 %	≤0.4 %	≤0.4 %	≤0.4 %
Systematic measurement error (50 µL)	±1.2 %	±1.2 %	±1.2 %	±1.2 %
Random measurement error (1,000 µL)	≤0.15 %	≤0.15 %	≤0.15 %	≤0.15 %
Systematic measurement error (1,000 µL)	±0.7 %	±0.7 %	±0.7 %	±0.7 %
Pipetting type	Air-cushion	Air-cushion	Air-cushion	Air-cushion
Gripper option	no	no	yes	yes
Thermal module (optional)	no	no	1	no
Cooling rate	–	–	4 °C/min	–
Heating rate	–	–	9 °C/min	–
ThermoMixer upgrade option	no	no	no	included
Eppendorf ThermoMixer®				
Max. load	–	–	–	1,000 g (2.2 lb)
Mixing period	–	–	–	5 s – 120 min
Speed	–	–	–	300 rpm – 2,000 rpm
Temperature range	–	–	–	15 °C below RT to 95 °C
Vacuum unit				
Vacuum max. output	–	–	–	–
Underground area	–	–	–	–
Suction time	–	–	–	–
Magnetic separation	no	no	with third party adapter and gripper	yes
Vacuum separation	no	no	no	no
Automatic tool exchange	2 tools	2 tools	2 tools and gripper	2 tools and gripper
UV/HEPA option	no	no	yes	yes
MagSep reagents for DNA/RNA purification	–	–	–	yes
For operation in biosafety cabinet	–	yes	–	–

[1)] in pipetting mode, free jet, without pre-wetting, with distilled water, at 20 °C [2)] See Eppendorf Application Note 168 for typical pipetting performance

i For more information go to www.eppendorf.com

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Liquid Handling

Model	ep*Motion*® 5075l	ep*Motion*® 5075v	ep*Motion*® 5075t	ep*Motion*® 5075m
Page(s)	**87**	**89**	**88**	**88**
Dimensions (W × D × H)	107 × 61 × 67 cm / 43 × 24 × 27 in	107 × 61 × 67 cm / 43 × 24 × 27 in	107 × 61 × 67 cm / 43 × 24 × 27 in	107 × 61 × 67 cm / 43 × 24 × 27 in
Weight w/o accessories	85 kg	86 kg	87 kg	88 kg
Max. power consumption	700 W	700 W	700 W	700 W
Power supply	100 – 240 V ±10 %, 50 – 60 Hz ±5 %	100 – 240 V ±10 %, 50 – 60 Hz ±5 %	100 – 240 V ±10 %, 50 – 60 Hz ±5 %	100 – 240 V ±10 %, 50 – 60 Hz ±5 %
Optical confocal infrared detector	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities	Contact-free recognition of fill level, inserted tools, labware, tip types and quantities
SLAS/ANSI positions	15	12	14.5	14.5
Volume range	0.2 µL – 1 mL	0.2 µL – 1 mL	0.2 µL – 1 mL	0.2 µL – 1 mL
Random measurement error	±0.1 mm	±0.1 mm	±0.1 mm	±0.1 mm
Systematic measurement error	±0.3 mm	±0.3 mm	±0.3 mm	±0.3 mm
Dispensing tool[1)2)]				
Random measurement error (1 µL)	≤3 %	≤3 %	≤3 %	≤3 %
Systematic measurement error (1 µL)	±5 %	±5 %	±5 %	±5 %
Random measurement error (50 µL)	≤0.4 %	≤0.4 %	≤0.4 %	≤0.4 %
Systematic measurement error (50 µL)	±1.2 %	±1.2 %	±1.2 %	±1.2 %
Random measurement error (1,000 µL)	≤0.15 %	≤0.15 %	≤0.15 %	≤0.15 %
Systematic measurement error (1,000 µL)	±0.7 %	±0.7 %	±0.7 %	±0.7 %
Pipetting type	Air-cushion	Air-cushion	Air-cushion	Air-cushion
Gripper option	yes	included	yes	yes
Thermal module (optional)	3	3	2	2
Cooling rate	–	–	–	–
Heating rate	–	–	–	–
ThermoMixer upgrade option	yes	yes	included	included
Eppendorf ThermoMixer®				
Max. load	–	–	–	–
Mixing period	–	–	–	–
Speed	–	–	–	–
Temperature range	–	–	–	–
Vacuum unit				
Vacuum max. output	–	35 NL/min	–	–
Underground area	–	–	–	–
Suction time	–	–	–	–
Magnetic separation	with third party adapter and gripper	with third party adapter and gripper	with third party adapter and gripper	yes
Vacuum separation	no	yes	no	no
Automatic tool exchange	4 tools and gripper	4 tools and gripper	4 tools and gripper	4 tools and gripper
UV/HEPA option	yes	yes	yes	yes
MagSep reagents for DNA/RNA purification	–	–	–	yes
For operation in biosafety cabinet	–	–	–	–

[1)] in pipetting mode, free jet, without pre-wetting, with distilled water, at 20 °C [2)] See Eppendorf Application Note 168 for typical pipetting performance

Only for epMotion 5073m, 5073mc and 5075m: Limited Use Label License

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Technical specifications subject to change.

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Eppendorf Changed the Face of Pipetting Forever

For over 70 years Eppendorf has helped to revolutionize scientific research by continuously introducing technologies that have made research faster, safer, and more accurate. Eppendorf developed the first industrial manufactured piston stroke pipette. The »Marburg Pipette«, launched in 1961, featured the same basic elements that we find in today's labs: A spring-loaded piston and a removable plastic tip.
This alternative to serological pipetting forever changed the face of pipetting and distinguished Eppendorf as on of the leaders in liquid handling.

Achieve better results with the right pipette!

Nowadays, Eppendorf's flexible systems offer a variety of options for meeting different laboratory requirements and applicational demands. According to your needs you can choose between manual and automatic pipetting and dispensing systems (see overview pages 18-21). Manual air-cushion and direct-displacement pipettes are available as a mechanical or electronic version in a single or multichannel design.

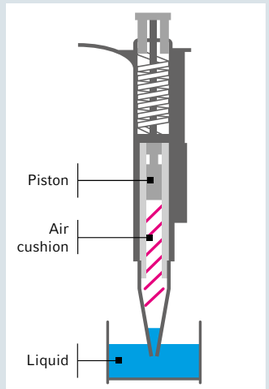
Air-cushion principle

Standard pipettes work with an air cushion that separates the piston from the liquid. The air is displaced by the piston. The volume of the displaced air is equivalent to the volume of liquid aspirated.

Applications
This system is optimal for accurate pipetting of aqueous solutions.

Mechanical Eppendorf Pipettes
The workhorse for each lab, available as variable or fixed volume version
> Eppendorf Research® plus, pages 27
> Eppendorf Reference® 2, pages 34
> Easypet® 3, pages 75

Electronic Eppendorf Pipettes
For fast, consistent and accurate pipetting while reducing physical strain and eliminating user-to-user variability.
> Eppendorf Xplorer®/Xplorer® plus, pages 37



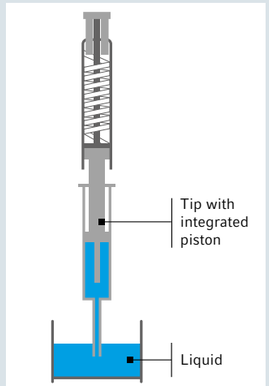
Direct displacement principle

Sample liquid is aspirated into a tip in direct contact with the integrated piston. This system is independent from an air cushion. This offers the advantage of accurate dispensing of even highly viscous liquids. In addition, this system reduces strain for long dispensing series and you save valuable time.

Applications
This system is your choice when you expect accurate results even when working with challenging liquids regardless of density, viscosity, and volatility.

Mechanical Eppendorf Dispenser
For time-saving accurate pipetting of even difficult liquids
> Multipette® M4

Electronic Eppendorf Dispenser
For time-saving accurate pipetting while reducing physical strain offering additional applications like automatic dispensing, dilution series and others.
> Multipette® E3/E3x



Eppendorf Research® plus

The ultra light pipette that delights your hand
The Eppendorf Research plus combines over 50 years of innovation in liquid handling and is one of the most commonly used pipettes in the world. It provides you with one of the safest and most ergonomic pipettes available today. The Research plus protects the health of our customers during their daily work. It has pioneered the renowned PhysioCare Concept® and thus reduced the strain on hand and arm during pipetting essentially. The Research plus is the pipette family with the lowest weight and lowest operation forces in the Eppendorf product families. Lower operation forces can only be reached with our Eppendorf electronic pipettes. The spring loaded tip cone ensures low tip attachment and ejection forces. The Research plus has the ability to be autoclaved without the need to be disassembled. Fixed-volume pipettes and multichannel options are available; the Research plus pipette will become an indispensable tool in your laboratory.

Product features
> Air-displacement pipette for accurate pipetting of aqueous solutions
> Feel the difference in weight and pipetting forces: the ultra light mechanical pipette is designed according to the strict criteria of the Eppendorf PhysioCare Concept and limits the strain on your hand and arm
> Spring loaded tip cone (not available for 2.5 mL, 5 mL and 10 mL pipettes) for minimal tip attachment forces helps to reduce stress
> Tip ejection force of Eppendorf Research plus can be as low as 3.6 N
> Adjust your pipette in seconds for better accuracy when pipetting various difficult liquids like ethanol or even when pipetting at high altitudes. Return to factory adjustment without calibration
> Autoclave the entire pipette or only the lower part according to your needs to ensure decontamination
> Enjoy excellent flexibility and choose among single-channel pipettes in fixed or variable volume as well as 8, 12, 16 and 24-channel pipettes

Applications
> Forward pipetting
> Reverse pipetting
> Removal of supernatants
> Sample mixing
> Phase extraction
> Filling of plates, gels, and reaction vessels

Forward and reverse pipetting

Transfer	Forward pipetting	Reverse pipetting
Liquid uptake	1. Press operating button down to 1st stop 2. Let operating button move up completely	1. Press operating button down to 2nd stop 2. Let operating button move up completely
Liquid discharge	3. Press operating button via 1st stop down to 2nd stop	3. Press operating button down to 1st stop
Observation	4. No liquid is left in tip after action	4. Liquid is left in tip after action (volume of blow-out)

➤ For more information go to: https://handling-solutions.eppendorf.com/liquid-handling/pipetting-facts/pipetting-of-challenging-liquids/

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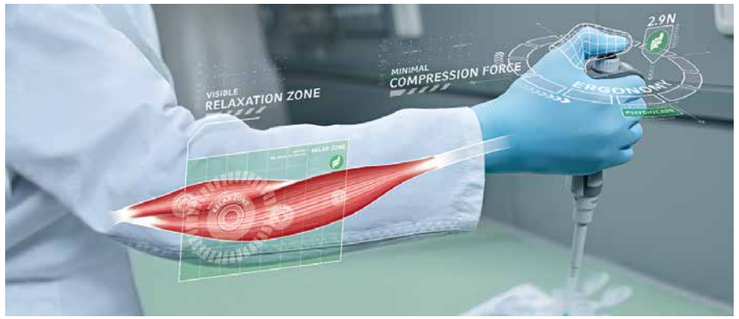
Eppendorf Research® plus

A joy for your eyes - The display
4-digit volume display with magnifying window. Easy to read. Allows for more accurate volume setting.



Fatigue-free pipetting
Strain on your hand and arm is limited by reduced tip attachment and ejection force.
For more information go to **https://handling-solutions.eppendorf.com/liquid-handling/pipetting-facts/ergonomics/**

Secondary adjustment option for various liquid classes
Adjust your pipetting volume in seconds by up to ±2 % for better accuracy when pipetting various difficult liquids like warm, cold, volatile or high density liquids or even when external conditions change (e.g., altitude or use of elongated tips). Change back to factory adjustment easily without calibration.

Eppendorf Research® plus – Single-Channel Pipettes

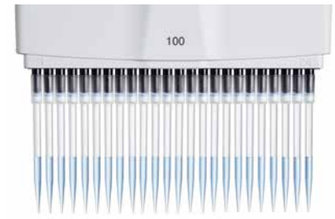
Adjustable volume pipettes
> Adjustable dispensing volumes within a range of 0.1 µL and 10 mL
> Selected volume is clearly displayed in the large 4-digit volume display
> Quick and accurate volume settings easier than ever
> The new volume setting allows for switch from maximum to minimum volume in just a few turns

Fixed volume pipettes
> Perfect for beginners and labs on a budget
> Volume cannot be changed which allows working at a faster pace
> Less likely to commit an error which can occur with an adjustable pipette
> Calibration is much more easier and quicker

Technical specifications subject to change.

Eppendorf Research® plus – Multichannel Pipettes

Get your work done faster!
You want to easily and quickly fill a 96- or even 384-well microplate? With the lightweight Eppendorf Research plus multichannel pipettes you get a higher volume of precision work done. The unique spring loaded tip cone helps to load multi-channel tips quickly and securely without a need for rocking. Get extremely consistent sample pickup across all channels and maximize user to user reproducibility for more uniform results among members of the lab.



Consistent sample pickup across all channels maximizes reproducibility of your results

9 mm cone distance for applications in 96-well microplates or DWP:

Easily fill 96-well microplates with 8- or 12-channel pipettes. The new 1,200 µL volume is ideal for filling deep well plates.

Choose tips for 9 mm spacing

4.5 mm cone distance for applications in 384-well microplates or DWP:

Choose a 16- or 24-channel pipette for applications in 384-well plates.

Choose tips for 4.5 mm spacing

Applications
> Drug screening
> Enzyme assays
> ELISA
> PCR
> Cell culture
> Other high-throughput applications

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Eppendorf Research® plus

Single-channel pipettes

Ordering information

Volume range	Color code	Rel. systematic error[1]	Abs. systematic error[1]	Rel. random error[1]	Abs. random error[1]	Order no.
Eppendorf Research® plus, single-channel, fixed						
10 µL	medium gray	±1.2 %	±0.12 µL	±0.6 %	±0.06 µL	3121 000.015
10 µL	yellow	±1.2 %	±0.12 µL	±0.6 %	±0.06 µL	3121 000.023
20 µL	light gray	±0.8 %	±0.16 µL	±0.3 %	±0.06 µL	3121 000.031
20 µL	yellow	±1.0 %	±0.2 µL	±0.3 %	±0.06 µL	3121 000.040
25 µL	yellow	±1.0 %	±0.25 µL	±0.3 %	±0.08 µL	3121 000.058
50 µL	yellow	±0.7 %	±0.35 µL	±0.3 %	±0.15 µL	3121 000.066
100 µL	yellow	±0.6 %	±0.6 µL	±0.2 %	±0.2 µL	3121 000.074
200 µL	yellow	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	3121 000.082
200 µL	blue	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	3121 000.090
250 µL	blue	±0.6 %	±1.5 µL	±0.2 %	±0.5 µL	3121 000.104
500 µL	blue	±0.6 %	±3.0 µL	±0.2 %	±1.0 µL	3121 000.112
1,000 µL	blue	±0.6 %	±6.0 µL	±0.2 %	±2.0 µL	3121 000.120

[1] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

Single-channel pipettes

Ordering information

Volume range	Color code	Volume	Rel. systematic error[1]	Abs. systematic error[1]	Rel. random error[1]	Abs. random error[1]	Order no.
Eppendorf Research® plus, single-channel, variable, incl. epT.I.P.S.® Box							
0.1 – 2.5 µL	dark gray	0.1 µL	±48.0 %	±0.048 µL	±12.0 %	±0.012 µL	3120 000.011
		0.25 µL	±12.0 %	±0.03 µL	±6.0 %	±0.015 µL	
		1.25 µL	±2.5 %	±0.031 µL	±1.5 %	±0.019 µL	
		2.5 µL	±1.4 %	±0.035 µL	±0.7 %	±0.018 µL	
0.5 – 10 µL	medium gray	0.5 µL	±8.0 %	±0.04 µL	±5.0 %	±0.025 µL	3120 000.020
		1 µL	±2.5 %	±0.025 µL	±1.8 %	±0.018 µL	
		5 µL	±1.5 %	±0.075 µL	±0.8 %	±0.04 µL	
		10 µL	±1.0 %	±0.1 µL	±0.4 %	±0.04 µL	
2 – 20 µL	light gray	2 µL	±5.0 %	±0.1 µL	±1.5 %	±0.03 µL	3120 000.097
		10 µL	±1.2 %	±0.12 µL	±0.6 %	±0.06 µL	
		20 µL	±1.0 %	±0.2 µL	±0.3 %	±0.06 µL	
2 – 20 µL	yellow	2 µL	±5.0 %	±0.1 µL	±1.5 %	±0.03 µL	3120 000.038
		10 µL	±1.2 %	±0.12 µL	±0.6 %	±0.06 µL	
		20 µL	±1.0 %	±0.2 µL	±0.3 %	±0.06 µL	
10 – 100 µL	yellow	10 µL	±3.0 %	±0.3 µL	±1.0 %	±0.1 µL	3120 000.046
		50 µL	±1.0 %	±0.5 µL	±0.3 %	±0.15 µL	
		100 µL	±0.8 %	±0.8 µL	±0.2 %	±0.2 µL	
20 – 200 µL	yellow	20 µL	±2.5 %	±0.5 µL	±0.7 %	±0.14 µL	3120 000.054
		100 µL	±1.0 %	±1.0 µL	±0.3 %	±0.3 µL	
		200 µL	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	
30 – 300 µL	orange	30 µL	±2.5 %	±0.75 µL	±0.7 %	±0.21 µL	3120 000.100
		150 µL	±1.0 %	±1.5 µL	±0.3 %	±0.45 µL	
		300 µL	±0.6 %	±1.8 µL	±0.2 %	±0.6 µL	
100 – 1,000 µL	blue	100 µL	±3.0 µL	±3.0 µL	±0.6 %	±0.6 µL	3120 000.062
		500 µL	±1.0 %	±5.0 µL	±0.2 %	±1.0 µL	
		1,000 µL	±0.6 %	±6.0 µL	±0.2 %	±2.0 µL	

[1] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

Ordering information

	Volume range	Color code	Volume	Rel. systematic error[1]	Abs. systematic error[1]	Rel. random error[1]	Abs. random error[1]	Order no.
	Eppendorf Research® plus, single-channel, variable, incl. epT.I.P.S.® sample bag							
New	0.25 – 2.5 mL	red	0.25 mL	±4.8 %	±0.012 mL	±1.2 %	±0.003 mL	3120 000.143
			1.25 mL	±0.8 %	±0.01 mL	±0.2 %	±0.0025 mL	
			2.5 mL	±0.6 %	±0.015 mL	±0.2 %	±0.005 mL	
	0.5 – 5 mL	violet	0.5 mL	±2.4 %	±0.012 mL	±0.6 %	±0.003 mL	3120 000.070
			2.5 mL	±1.2 %	±0.03 mL	±0.25 %	±0.006 mL	
			5 mL	±0.6 %	±0.03 mL	±0.15 %	±0.008 mL	
	1 – 10 mL	turquoise	1 mL	±3.0 %	±0.03 mL	±0.6 %	±0.006 mL	3120 000.089
			5 mL	±0.8 %	±0.04 mL	±0.2 %	±0.01 mL	
			10 mL	±0.6 %	±0.06 mL	±0.15 %	±0.015 mL	

[1] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

8-channel pipettes

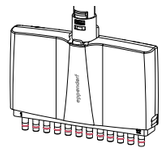
Ordering information

	Volume range	Color code	Volume	Rel. systematic error[1]	Abs. systematic error[1]	Rel. random error[1]	Abs. random error[1]	Order no.
	Eppendorf Research® plus, 8-channel, variable, incl. epT.I.P.S.® Box							
	0.5 – 10 µL	medium gray	0.5 µL	±12.0 %	±0.06 µL	±8.0 %	±0.04 µL	3122 000.019
			1 µL	±8.0 %	±0.08 µL	±5.0 %	±0.05 µL	
			5 µL	±4.0 %	±0.2 µL	±2.0 %	±0.1 µL	
			10 µL	±2.0 %	±0.2 µL	±1.0 %	±0.1 µL	
	10 – 100 µL	yellow	10 µL	±3.0 %	±0.3 µL	±2.0 %	±0.2 µL	3122 000.035
			50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
			100 µL	±0.8 %	±0.8 µL	±0.3 %	±0.3 µL	
	30 – 300 µL	orange	30 µL	±3.0 %	±0.9 µL	±1.0 %	±0.3 µL	3122 000.051
			150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
			300 µL	±0.6 %	±1.8 µL	±0.3 %	±0.9 µL	
New	120 – 1,200 µL	green	120 µL	±6.0 %	±7.2 µL	±0.9 %	±1.08 µL	3122 000.213
			600 µL	±2.7 %	±16.2 µL	±0.4 %	±2.4 µL	
			1,200 µL	±1.2 %	±14.4 µL	±0.3 %	±3.6 µL	

[1] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 8-channel pipettes please choose standard epT.I.P.S., see pages 56 - 61

Eppendorf Research® plus



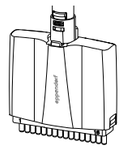
12-channel pipettes

Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Research® plus, 12-channel, variable, incl. epT.I.P.S.® Box							
0.5 – 10 µL	medium gray	0.5 µL	±12.0 %	±0.06 µL	±8.0 %	±0.04 µL	3122 000.027
		1 µL	±8.0 %	±0.08 µL	±5.0 %	±0.05 µL	
		5 µL	±4.0 %	±0.2 µL	±2.0 %	±0.1 µL	
		10 µL	±2.0 %	±0.2 µL	±1.0 %	±0.1 µL	
10 – 100 µL	yellow	10 µL	±3.0 %	±0.3 µL	±2.0 %	±0.2 µL	3122 000.043
		50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
		100 µL	±0.8 %	±0.8 µL	±0.3 %	±0.3 µL	
30 – 300 µL	orange	30 µL	±3.0 %	±0.9 µL	±1.0 %	±0.3 µL	3122 000.060
		150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
		300 µL	±0.6 %	±1.8 µL	±0.3 %	±0.9 µL	
New 120 – 1,200 µL	green	120 µL	±6.0 %	±7.2 µL	±0.9 %	±1.08 µL	3122 000.221
		600 µL	±2.7 %	±16.2 µL	±0.4 %	±2.4 µL	
		1,200 µL	±1.2 %	±14.4 µL	±0.3 %	±3.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 12-channel pipettes please choose standard epT.I.P.S., see pages 56 - 61



New

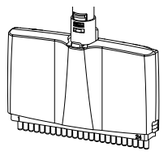
16-channel pipettes, for 384-well plates

Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Research® plus, 16-channel, variable							
1 – 20 µL	pearl white	2 µL	±10 %	±0.2 µL	±3 %	±0.06 µL	3122 000.078
		10 µL	±2.4 %	±0.24 µL	±1.2 %	±0.12 µL	
		20 µL	±2 %	±0.4 µL	±0.6 %	±0.12 µL	
5 – 100 µL	light yellow	10 µL	±3 %	±0.3 µL	±2 %	±0.2 µL	3122 000.094
		50 µL	±1.2 %	±0.6 µL	±1 %	±0.5 µL	
		100 µL	±1 %	±1 µL	±0.6 %	±0.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 16-channel pipettes please choose epT.I.P.S. 384, see pages 62 - 63



New

24-channel pipettes, for 384-well plates

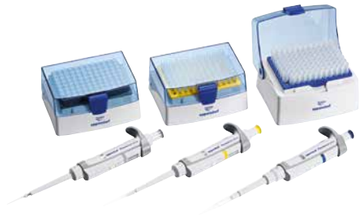
Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Research® plus, 24-channel, variable							
1 – 20 µL	pearl white	2 µL	±10 %	±0.2 µL	±3 %	±0.06 µL	3122 000.086
		10 µL	±2.4 %	±0.24 µL	±1.2 %	±0.12 µL	
		20 µL	±2 %	±0.4 µL	±0.6 %	±0.12 µL	
5 – 100 µL	light yellow	10 µL	±3 %	±0.3 µL	±2 %	±0.2 µL	3122 000.108
		50 µL	±1.2 %	±0.6 µL	±1 %	±0.5 µL	
		100 µL	±1 %	±1 µL	±0.6 %	±0.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 24-channel pipettes please choose epT.I.P.S. 384 see pages 62 - 63

Eppendorf Research® plus 3-pack



Get your lab up and running fast with our 3-pack of Research plus pipettes
Get ready for a threefold enjoyable pipetting experience with one of the most advanced and ergonomic pipettes in the world. The economic Research plus triple-pack is available in three different versions. In addition to three Research plus pipettes, each pack contains one set of matching Eppendorf tips and one of the popular Eppendorf ballpoint pens.

Ordering information

Eppendorf Research® plus	Order no.
Eppendorf Research® plus 3-pack, single-channel, variable, incl. epT.I.P.S.® Box or sample bag and ballpoint pen	
Option 1: 0.5 – 10 µL, 10 – 100 µL, 100 – 1,000 µL	3120 000.909
Option 2: 2 – 20 µL yellow, 20 – 200 µL, 100 – 1,000 µL	3120 000.917
Option 3: 100 – 1,000 µL, 0.5 – 5 mL, 1 – 10 mL	3120 000.925

Eppendorf Tip-tub

Tip: the Eppendorf Tip-tub reagent reservoir is suitable for all 8-, 12-, 16- and 24-channel pipettes. See below for ordering information.

Accessories

Accessories

Description	Order no.
Eppendorf Research® plus red adjustment seal ADJ, 1 set = 5 pieces	3120 636.005
Adjustment tool, for changing factory or secondary user adjustment	3120 633.006
Safety plug tools, 5 pieces	3120 639.004
Protection filter 5 mL, 10 filters with 1 filter sleeve, for 0.5 – 5 mL variable Eppendorf Reference® 2, Eppendorf Research plus and Eppendorf Xplorer® (plus), color code: violet	4920 623.005
Protection filter 10 mL, 10 filters with 1 filter sleeve, for 1 – 10 mL variable Eppendorf Reference® 2, Eppendorf Research® plus and Eppendorf Xplorer® (plus), color code: turquoise	4920 624.001
O-ring for tip cones, 24 pcs., red, for 100 and 300 µL multi-channel pipettes, with mounting aid (1 set = 24 pieces)	3122 611.000
Cutting tool, for O-rings of 100 and 300 µL, for Eppendorf Research® plus/Eppendorf Xplorer®	3122 610.003
Key, for detachment of 2 – 10 mL pipettes lower parts, for Eppendorf Research® plus, Eppendorf Reference® 2, Eppendorf Xplorer®	3120 634.002
Locking ring, to prevent spring action of 10 mL to 1,000 µL single-channel pipettes tip cones	3120 635.009
Tip-Tub reagent reservoir 70 mL, autoclavable reservoir for aspirating liquids with multi-channel pipettes, 1 set = 10 reservoirs and 10 lids	0030 058.607
Pipette grease with lint-free applicator	0013 022.153
Eppendorf TrackIT, RFID Reader and Software	3903 000.014

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Eppendorf Reference® 2

Extraordinary precision and accuracy – Eppendorf´s premium pipette
Besides improved ergonomics the design focus lays on providing the most accurate results possible, optimum user safety, reliability and robustness for a long service life. The innovative single button operation is not only fast and easy, but it also allows active aerosol[1)] reduction and thus protects the user, the sample and the pipette. The sturdy handle manufactured with stainless steel protects the pipette from impact and in combination with the spring loaded bumpers the Reference 2 is likely to stay within calibration even if it takes a fall. These high levels of security make the Reference 2 ideal for use with precious liquids, or in any application requiring extremely high levels of accuracy. When there can be no compromise on quality and reproducibility, Eppendorf's Reference 2 is an ideal instrument for these liquid handling applications.

[1)] An aerosol is a colloid of fine solid particles or liquid droplets in air or another gas.

DESIGN AWARD

PhysioCare concept

Product features
> The one-button operation offers fast and ergonomic handling with reduced operating effort and active aerosol reduction. To avoid accidential tip ejection a clear haptic feedback is provided
> The spring-loaded tip cone improves user-to-user reproducibility and improved ergonomics by lowering tip attachment force
> The Reference 2 multi-channel offers high flexibility incl. a spring-loaded tip cone which can be switched on/off optionally
> The secondary adjustment supports the easy adjustment of your Reference 2 for the most accurate pipetting of different liquids or other external conditions without the need for a full calibration
> The oustanding precision and accuracy of Reference 2 provides reliable results
> 4-digit volume display with magnifying window to allow for easier volume identification
> The unique smooth surface guarantees simple cleaning. In addition to the full autoclavability of this pipette, decontamination is as easy and efficient as never before. This is the ideal pipette when working under sterile conditions
> An embedded RFID chip contains all relevant data regarding the pipette and offers with Eppendorf TrackIT a simple identification and documentation
> Available as single-channel pipette in fixed or variable volume as well as 8-and 12-channel pipette

Applications
> Forward pipetting
> Reverse pipetting
> Removal of supernatants
> Sample mixing
> Phase extraction
> Filling of plates, gels, and reaction vessels

User-friendly secondary adjustment
For liquids other than aqueous solutions. Leaving the factory settings untouched, a reset back to manufacturer setting is just as quick and easy.

Exquisite stainless steel upper part
Equips the Reference 2 with outstanding robustness at potential impact sites. It includes quick volume setting and secure volume lock.

i For more information go to www.eppendorf.com/Reference2

Technical specifications subject to change.

Ordering information

Volume range	Color code	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Reference® 2, single-channel, fixed						
1 µL	dark gray	±2.5 %	±0.025 µL	±1.8 %	±0.018 µL	4921 000.010
2 µL	dark gray	±2.0 %	±0.04 µL	±1.2 %	±0.024 µL	4921 000.028
5 µL	medium gray	±1.2 %	±0.06 µL	±0.6 %	±0.03 µL	4921 000.036
10 µL	medium gray	±1.0 %	±0.1 µL	±0.5 %	±0.05 µL	4921 000.044
10 µL	yellow	±1.2 %	±0.12 µL	±0.5 %	±0.05 µL	4921 000.052
20 µL	light gray	±0.8 %	±0.16 µL	±0.3 %	±0.06 µL	4921 000.060
20 µL	yellow	±1.0 %	±0.2 µL	±0.3 %	±0.06 µL	4921 000.079
25 µL	yellow	±1.0 %	±0.25 µL	±0.3 %	±0.075 µL	4921 000.087
50 µL	yellow	±0.7 %	±0.35 µL	±0.3 %	±0.15 µL	4921 000.095
100 µL	yellow	±0.6 %	±0.6 µL	±0.2 %	±0.2 µL	4921 000.109
200 µL	yellow	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	4921 000.117
200 µL	blue	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	4921 000.125
250 µL	blue	±0.6 %	±1.5 µL	±0.2 %	±0.5 µL	4921 000.133
500 µL	blue	±0.6 %	±3.0 µL	±0.2 %	±1.0 µL	4921 000.141
1,000 µL	blue	±0.6 %	±6.0 µL	±0.2 %	±2.0 µL	4921 000.150
2 mL	red	±0.6 %	±0.012 mL	±0.2 %	±0.004 mL	4921 000.168
2.5 mL	red	±0.6 %	±0.015 mL	±0.2 %	±0.005 mL	4921 000.176

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Reference® 2, single-channel, variable, incl. epT.I.P.S.® Box							
0.1 – 2.5 µL	dark gray	0.1 µL	±48.0 %	±0.048 µL	±12.0 %	±0.012 µL	4920 000.016
		0.25 µL	±12.0 %	±0.03 µL	±6.0 %	±0.015 µL	
		1.25 µL	±2.5 %	±0.031 µL	±1.5 %	±0.019 µL	
		2.5 µL	±1.4 %	±0.035 µL	±0.7 %	±0.018 µL	
0.5 – 10 µL	medium gray	0.5 µL	±8.0 %	±0.04 µL	±5.0 %	±0.025 µL	4920 000.024
		1.0 µL	±2.5 %	±0.025 µL	±1.8 %	±0.018 µL	
		5.0 µL	±1.5 %	±0.075 µL	±0.8 %	±0.04 µL	
		10 µL	±1.0 %	±0.10 µL	±0.4 %	±0.04 µL	
2 – 20 µL	light gray	2.0 µL	±3.0 %	±0.06 µL	±1.5 %	±0.03 µL	4920 000.032
		10 µL	±1.0 %	±0.10 µL	±0.6 %	±0.06 µL	
		20 µL	±0.8 %	±0.16 µL	±0.3 %	±0.06 µL	
2 – 20 µL	yellow	2.0 µL	±5.0 %	±0.10 µL	±1.5 %	±0.03 µL	4920 000.040
		10 µL	±1.2 %	±0.12 µL	±0.6 %	±0.06 µL	
		20 µL	±1.0 %	±0.2 µL	±0.3 %	±0.06 µL	
10 – 100 µL	yellow	10 µL	±3.0 %	±0.3 µL	±0.7 %	±0.07 µL	4920 000.059
		50 µL	±1.0 %	±0.5 µL	±0.3 %	±0.15 µL	
		100 µL	±0.8 %	±0.8 µL	±0.2 %	±0.2 µL	
20 – 200 µL	yellow	20 µL	±2.5 %	±0.5 µL	±0.7 %	±0.14 µL	4920 000.067
		100 µL	±1.0 %	±1.0 µL	±0.3 %	±0.3 µL	
		200 µL	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	
30 – 300 µL	orange	30 µL	±2.5 %	±0.75 µL	±0.7 %	±0.21 µL	4920 000.075
		150 µL	±1.0 %	±1.5 µL	±0.3 %	±0.45 µL	
		300 µL	±0.6 %	±1.8 µL	±0.2 %	±0.6 µL	
100 – 1,000 µL	blue	100 µL	±3.0 %	±3.0 µL	±0.6 %	±0.6 µL	4920 000.083
		500 µL	±1.0 %	±5.0 µL	±0.2 %	±1.0 µL	
		1,000 µL	±0.6 %	±6.0 µL	±0.2 %	±2.0 µL	
Eppendorf Reference® 2, single-channel, variable, incl. epT.I.P.S.® sample bag							
0.25 – 2.5 mL	red	0.25 mL	±4.8 %	±0.012 mL	±1.2 %	±0.003 mL	4920 000.091
		1.25 mL	±0.8 %	±0.010 mL	±0.2 %	±0.0025 mL	
		2.5 mL	±0.6 %	±0.015 mL	±0.2 %	±0.005 mL	
0.5 – 5 mL	violet	0.5 mL	±2.4 %	±0.012 mL	±0.6 %	±0.003 mL	4920 000.105
		2.5 mL	±1.2 %	±0.030 mL	±0.25 %	±0.006 mL	
		5.0 mL	±0.6 %	±0.030 mL	±0.15 %	±0.0075 mL	
1 – 10 mL	turquoise	1.0 mL	±3.0 %	±0.030 mL	±0.6 %	±0.006 mL	4920 000.113
		5.0 mL	±0.8 %	±0.040 mL	±0.2 %	±0.010 mL	
		10.0 mL	±0.6 %	±0.060 mL	±0.15 %	±0.015 mL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

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Eppendorf Reference® 2

Ordering information

Volume range	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Reference® 2, 8-channel, variable, incl. epT.I.P.S.® Box						
0.5 – 10 µL medium gray	0.5 µL	±12.0 %	±0.06 µL	±8.0 %	±0.04 µL	4922 000.013
	1.0 µL	±8.0 %	±0.08 µL	±5.0 %	±0.05 µL	
	5.0 µL	±4.0 %	±0.2 µL	±2.0 %	±0.1 µL	
	10 µL	±2.0 %	±0.2 µL	±1.0 %	±0.1 µL	
10 – 100 µL yellow	10 µL	±3.0 %	±0.3 µL	±2.0 %	±0.2 µL	4922 000.030
	50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
	100 µL	±0.8 %	±0.8 µL	±0.3 %	±0.3 µL	
30 – 300 µL orange	30 µL	±3.0 %	±0.9 µL	±1.0 %	±0.3 µL	4922 000.056
	150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
	300 µL	±0.6 %	±1.8 µL	±0.3 %	±0.9 µL	
Eppendorf Reference® 2, 12-channel, variable, incl. epT.I.P.S.® Box						
0.5 – 10 µL medium gray	0.5 µL	±12.0 %	±0.06 µL	±8.0 %	±0.04 µL	4922 000.021
	1.0 µL	±8.0 %	±0.08 µL	±5.0 %	±0.05 µL	
	5.0 µL	±4.0 %	±0.2 µL	±2.0 %	±0.1 µL	
	10 µL	±2.0 %	±0.2 µL	±1.0 %	±0.1 µL	
10 – 100 µL yellow	10 µL	±3.0 %	±0.3 µL	±2.0 %	±0.2 µL	4922 000.048
	50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
	100 µL	±0.8 %	±0.8 µL	±0.3 %	±0.3 µL	
30 – 300 µL orange	30 µL	±3.0 %	±0.9 µL	±1.0 %	±0.3 µL	4922 000.064
	150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
	300 µL	±0.6 %	±1.8 µL	±0.3 %	±0.9 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

Ordering information

Eppendorf Reference® 2	Order no.
Eppendorf Reference® 2, 3-pack, single-channel, variable, incl. epT.I.P.S.® Box or sample bag and ballpoint pen	
Option 1: 0.5 – 10 µL, 10 – 100 µL, 100 – 1,000 µL	4920 000.903
Option 2: 2 – 20 µL yellow, 20 – 200 µL, 100 – 1,000 µL	4920 000.911
Option 3: 100 – 1,000 µL, 0.5 – 5 mL, 1 – 10 mL	4920 000.920

Accessories

Description	Order no.
Eppendorf Reference® 2 red adjustment seal ADJ, incl. pin for removing the inserted seal, 1 set = 5 pieces	4920 626.004
Eppendorf Reference® 2 red safety plug, incl. pin for removing the inserted safety plug, 1 set = 5 pieces	4920 625.008
Adjustment tool, for changing factory or secondary user adjustment	3120 633.006
Protection filter 2.5 mL, 10 filters with 1 filter sleeve, for Eppendorf Reference® 2: 0.25 – 2.5 mL variable, 2 mL fixed volume and 2.5 mL fixed volume, color code: red	4920 622.009
Protection filter 5 mL, 10 filters with 1 filter sleeve, for 0.5 – 5 mL variable Eppendorf Reference® 2, Eppendorf Research plus and Eppendorf Xplorer® (plus), color code: violet	4920 623.005
Protection filter 10 mL, 10 filters with 1 filter sleeve, for 1 – 10 mL variable Eppendorf Reference® 2, Eppendorf Research® plus and Eppendorf Xplorer® (plus), color code: turquoise	4920 624.001
Cutting tool, for O-rings of 100 and 300 µL, for Eppendorf Research® plus/Eppendorf Xplorer®	3122 610.003
Key, for detachment of 2 – 10 mL pipettes lower parts, for Eppendorf Research® plus, Eppendorf Reference® 2, Eppendorf Xplorer®	3120 634.002
Locking ring, to prevent spring action of 10 mL to 1,000 µL single-channel pipettes tip cones	3120 635.009
Tip-Tub reagent reservoir 70 mL, autoclavable reservoir for aspirating liquids with multi-channel pipettes, 1 set = 10 reservoirs and 10 lids	0030 058.607
Pipette grease with lint-free applicator	0013 022.153
Eppendorf TrackIT, RFID Reader and Software	3903 000.014

➢ Pipette service and maintenance contracts can be found on page 372. Pipette tips can be found on page 48 onward.

i For more information go to www.eppendorf.com/Reference2

Eppendorf Xplorer®/Eppendorf Xplorer® plus

Simple, fast and precise with untiring battery power – You deserve it!
People who give 100% every day deserve the best tools and the best equipment. You work on demanding problems, and important decisions depend on the results of your work. The Eppendorf Xplorer/Xplorer plus is an electronic air-cushion pipette, supported by the Eppendorf PhysioCare Concept®. Using it means your work achieves a new level of simplicity, precision and reproducibility, with no more delays due to complicated programming or inflexible processes. The Xplorer pipettes are the ideal instrument if you need precisely adjustable parameters, reproducible and accurate results while eliminating user-to-user variability and experiencing fatigue-free pipetting.

Product features
> Air-displacement pipette for accurate aspiration and dispensing of aqueous solutions from 0.5 µL to 10 mL
> Individual programming and settings to achieve a new level of simplicity
> Selection dial for quick and easy selection of functions
> Multi-functional rocker with up is up and down is down functionality
> Spring-loaded tip cone (not available for 2.5 mL, 5 mL and 10 mL pipettes) for minimal tip attachment forces helps to reduce stress
> Powerful rechargeable battery for up to 8 hours work without the need for recharging
> Adjust your pipette in seconds for better accuracy when pipetting various difficult liquids like ethanol or even when pipetting at high altitudes
> Lower part of pipette can be autoclaved to ensure decontamination
> 9 different languages: Chinese, Dutch, English, French, German, Italian, Japanese, Portuguese and Spanish
> Enjoy excellent flexibility and choose among variable single-channel, 8-, 12-, 16- and 24-channel pipettes

SCIENTISTS' CHOICE AWARDS 17 WINNER

PhysioCare concept

Modes of operation	Xplorer	Xplorer plus
Pipetting (Pip): Aspiration and dispensing of liquids.	■	■
Manual Pipetting (Man): Aspiration of liquid can be manually stopped prior to reaching the max set volume; used for volume determination.	■	■
Pipetting and Mixing (P/M): Samples are aspirated and dispensed automatically followed by an adjustable number of mixing cycles.	■	■
Dispensing (Dis): Dispensing of liquid in equal partial volumes.	■	■
Automatic Dispensing (Ads): Automatic dispensing of liquid in equal partial volumes at user-defined time intervals.	■	■
Special mode (Spc) – Multi Aspiration: Consecutive aspiration for pooling into one pipette tip.		■
Special mode (Spc) – Sequential Dispensing: Aspiration of liquid followed by dispensing it in up to 10 user-defined volume steps.		■
Special mode (Spc) – Reverse Pipetting: Over-aspiration of liquid followed by a regular dispensing step. Ideal for non-aqueous solutions.		■
Special mode (Spc) – Diluting: Aspiration of a diluent and a sample separated by an air bubble.		■
Special mode (Spc) – Sequential pipetting: Pipetting of up to 10 user-defined volumes in sequential order.		■
Fix Volume (Fix): Save up to 10 of your most frequently used volumes including aspiration and dispense speed for ease of operation.		■
Programming (Prg): Save up to 10 of your most common methods with up to 4 different pipetting steps each.		■
Options (Opt): Save favorite settings, set service intervals, activate key lock and more.	■	■

i For more information go to www.eppendorf.com/Xplorer

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Eppendorf Xplorer®/Eppendorf Xplorer® plus

1. Modern color display
All parameters without submenues

2. Individual speed setting
Adjust speed to improve precision and accuracy

3. Multifunctional rocker
With up is up and down is down functionality

4. Selection dial
All functions at a glance and easily selectable

5. Multilingual menu
User interface in 9 languages

6. Function control softkeys
Edit and Help at the push of a button

7. Innovative ejector
Electronically linked to the piston control

Applications
> Pipetting liquids (manual and automatic)
> Pipetting and mixing
> Dispensing (timed and manual)
> Volume determination (manual pipetting)
> Filling of plates, even 384-well plates, gels, and reaction vessels
> Phase extraction and removal of supernatants

Eppendorf Xplorer/Xplorer plus models are available as single, 8, 12, 16 and 24 channel pipettes.

Did you know?

For an accurate and precise pipetting technique, besides a proper pipetting device we recommend you to select a pipette with a nominal (maximum) volume as close as possible to the desired transfer volume.

Eppendorf Xplorer®

Single-channel pipettes

Ordering information

	Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
	Eppendorf Xplorer®, single-channel, variable							
	0.5 – 10 µL	medium gray	0.5 µL	±6.0 %	±0.03 µL	±3.0 %	±0.015 µL	4861 000.015
			1 µL	±2.5 %	±0.025 µL	±1.8 %	±0.018 µL	
			5 µL	±1.5 %	±0.075 µL	±0.8 %	±0.04 µL	
			10 µL	±1.0 %	±0.1 µL	±0.4 %	±0.04 µL	
New	1 – 20 µL	light gray	2 µL	±5.0 %	±0.1 µL	±1.5 %	±0.03 µL	4861 000.017
			10 µL	±1.2 %	±0.12 µL	±0.6 %	±0.06 µL	
			20 µL	±1.0 %	±0.2 µL	±0.3 %	±0.06 µL	
	5 – 100 µL	yellow	5 µL	±4.0 %	±0.2 µL	±2.0 %	±0.1 µL	4861 000.023
			10 µL	±2.0 %	±0.2 µL	±1.0 %	±0.1 µL	
			50 µL	±1.0 %	±0.5 µL	±0.3 %	±0.15 µL	
			100 µL	±0.8 %	±0.8 µL	±0.2 %	±0.2 µL	
New	10 – 200 µL	yellow	20 µL	±2.5 %	±0.5 µL	±0.7 %	±0.14 µL	4861 000.027
			100 µL	±1.0 %	±1.0 µL	±0.3 %	±0.3 µL	
			200 µL	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	
	15 – 300 µL	orange	15 µL	±5.0 %	±0.75 µL	±1.4 %	±0.21 µL	4861 000.031
			30 µL	±2.5 %	±0.75 µL	±0.7 %	±0.21 µL	
			150 µL	±1.0 %	±1.5 µL	±0.3 %	±0.45 µL	
			300 µL	±0.6 %	±1.8 µL	±0.2 %	±0.6 µL	
	50 – 1,000 µL	blue	50 µL	±6.0 %	±3 µL	±1.0 %	±0.5 µL	4861 000.040
			100 µL	±3.0 %	±3 µL	±0.6 %	±0.6 µL	
			500 µL	±1.0 %	±5 µL	±0.2 %	±1 µL	
			1,000 µL	±0.6 %	±6 µL	±0.2 %	±2 µL	
New	0.125 – 2.5 mL	red	250 µL	±4.8 %	±12 µL	±1.2 %	±3.0 µL	4861 000.044
			1,250 µL	±0.8 %	±10 µL	±0.2 %	±2.5 µL	
			2,500 µL	±0.6 %	±15 µL	±0.2 %	±5.0 µL	
	0.2 – 5 mL	violet	250 µL	±4.8 %	±12 µL	±1.2 %	±3 µL	4861 000.058
			500 µL	±3.0 %	±15 µL	±0.6 %	±3 µL	
			2,500 µL	±1.2 %	±30 µL	±0.25 %	±6.25 µL	
			5,000 µL	±0.6 %	±30 µL	±0.15 %	±7.5 µL	
	0.5 – 10 mL	turquoise	500 µL	±6.0 %	±30 µL	±1.2 %	±6 µL	4861 000.066
			1,000 µL	±3.0 %	±30 µL	±0.6 %	±6 µL	
			5,000 µL	±0.8 %	±40 µL	±0.2 %	±10 µL	
			10,000 µL	±0.6 %	±60 µL	±0.15 %	±15 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

Eppendorf Xplorer®

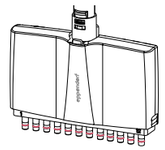
8-channel pipettes

Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Xplorer®, 8-channel, variable							
0.5 – 10 µL	medium gray	0.5 µL	±10.0 %	±0.05 µL	±6.0 %	±0.03 µL	4861 000.104
		1 µL	±5.0 %	±0.05 µL	±3.0 %	±0.03 µL	
		5 µL	±3.0 %	±0.15 µL	±1.5 %	±0.075 µL	
		10 µL	±2.0 %	±0.2 µL	±0.8 %	±0.08 µL	
5 – 100 µL	yellow	5 µL	±6.0 %	±0.3 µL	±4.0 %	±0.2 µL	4861 000.120
		10 µL	±2.0 %	±0.2 µL	±2.0 %	±0.2 µL	
		50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
		100 µL	±0.8 %	±0.8 µL	±0.25 %	±0.25 µL	
15 – 300 µL	orange	15 µL	±6.0 %	±0.9 µL	±2.0 %	±0.3 µL	4861 000.147
		30 µL	±2.5 %	±0.75 µL	±1.0 %	±0.3 µL	
		150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
		300 µL	±0.6 %	±1.8 µL	±0.25 %	±0.75 µL	
50 – 1,200 µL	green	50 µL	±8.0 %	±4.0 µL	±1.2 %	±0.6 µL	4861 000.163
		120 µL	±6.0 %	±7.2 µL	±0.9 %	±1.08 µL	
		600 µL	±2.7 %	±16.2 µL	±0.4 %	±2.4 µL	
		1,200 µL	±1.2 %	±14.4 µL	±0.3 %	±3.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 8-channel pipettes please choose standard epT.I.P.S., see pages 56 - 61



12-channel pipettes

Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Xplorer®, 12-channel, variable							
0.5 – 10 µL	medium gray	0.5 µL	±10.0 %	±0.05 µL	±6.0 %	±0.03 µL	4861 000.112
		1 µL	±5.0 %	±0.05 µL	±3.0 %	±0.03 µL	
		5 µL	±3.0 %	±0.15 µL	±1.5 %	±0.075 µL	
		10 µL	±2.0 %	±0.2 µL	±0.8 %	±0.08 µL	
5 – 100 µL	yellow	5 µL	±6.0 %	±0.3 µL	±4.0 %	±0.2 µL	4861 000.139
		10 µL	±2.0 %	±0.2 µL	±2.0 %	±0.2 µL	
		50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
		100 µL	±0.8 %	±0.8 µL	±0.25 %	±0.25 µL	
15 – 300 µL	orange	15 µL	±6.0 %	±0.9 µL	±2.0 %	±0.3 µL	4861 000.155
		30 µL	±2.5 %	±0.75 µL	±1.0 %	±0.3 µL	
		150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
		300 µL	±0.6 %	±1.8 µL	±0.25 %	±0.75 µL	
50 – 1,200 µL	green	50 µL	±8.0 %	±4.0 µL	±1.2 %	±0.6 µL	4861 000.171
		120 µL	±6.0 %	±7.2 µL	±0.9 %	±1.08 µL	
		600 µL	±2.7 %	±16.2 µL	±0.4 %	±2.4 µL	
		1,200 µL	±1.2 %	±14.2 µL	±0.3 %	±3.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 12-channel pipettes please choose standard epT.I.P.S., see pages 56 - 61

Eppendorf Xplorer® plus

Single-channel pipettes

Ordering information

	Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
	Eppendorf Xplorer® plus, single-channel, variable							
	0.5 – 10 µL	medium gray	0.5 µL	±6.0 %	±0.03 µL	±3.0 %	±0.015 µL	4861 000.708
			1 µL	±2.5 %	±0.025 µL	±1.8 %	±0.018 µL	
			5 µL	±1.5 %	±0.075 µL	±0.8 %	±0.04 µL	
			10 µL	±1.0 %	±0.1 µL	±0.4 %	±0.04 µL	
New	1 – 20 µL	light gray	2 µL	±5.0 %	±0.1 µL	±1.5 %	±0.03 µL	4861 000.710
			10 µL	±1.2 %	±0.12 µL	±0.6 %	±0.06 µL	
			20 µL	±1.0 %	±0.2 µL	±0.3 %	±0.06 µL	
	5 – 100 µL	yellow	5 µL	±4.0 %	±0.2 µL	±2.0 %	±0.1 µL	4861 000.716
			10 µL	±2.0 %	±0.2 µL	±1.0 %	±0.1 µL	
			50 µL	±1.0 %	±0.5 µL	±0.3 %	±0.15 µL	
			100 µL	±0.8 %	±0.8 µL	±0.2 %	±0.2 µL	
New	10 – 200 µL	yellow	20 µL	±2.5 %	±0.5 µL	±0.7 %	±0.14 µL	4861 000.720
			100 µL	±1.0 %	±1.0 µL	±0.3 %	±0.3 µL	
			200 µL	±0.6 %	±1.2 µL	±0.2 %	±0.4 µL	
	15 – 300 µL	orange	15 µL	±5.0 %	±0.75 µL	±1.4 %	±0.21 µL	4861 000.724
			30 µL	±2.5 %	±0.75 µL	±0.7 %	±0.21 µL	
			150 µL	±1.0 %	±1.5 µL	±0.3 %	±0.45 µL	
			300 µL	±0.6 %	±1.8 µL	±0.2 %	±0.6 µL	
	50 – 1,000 µL	blue	50 µL	±6.0 %	±3 µL	±1.0 %	±0.5 µL	4861 000.732
			100 µL	±3.0 %	±3 µL	±0.6 %	±0.6 µL	
			500 µL	±1.0 %	±5 µL	±0.2 %	±1 µL	
			1,000 µL	±0.6 %	±6 µL	±0.2 %	±2 µL	
New	0.125 – 2.5 mL	red	250 µL	±4.8 %	±12 µL	±1.2 %	±3.0 µL	4861 000.736
			1,250 µL	±0.8 %	±10 µL	±0.2 %	±2.5 µL	
			2,500 µL	±0.6 %	±15 µL	±0.2 %	±5.0 µL	
	0.2 – 5 mL	violet	200 µL	±4.8 %	±12 µL	±1.2 %	±3 µL	4861 000.740
			500 µL	±3.0 %	±15 µL	±0.6 %	±3 µL	
			2,500 µL	±1.2 %	±30 µL	±0.25 %	±6.25 µL	
			5,000 µL	±0.6 %	±30 µL	±0.15 %	±7.5 µL	
	0.5 – 10 mL	turquoise	500 µL	±6.0 %	±30 µL	±1.2 %	±6 µL	4861 000.759
			1,000 µL	±3.0 %	±30 µL	±0.6 %	±6 µL	
			5,000 µL	±0.8 %	±40 µL	±0.2 %	±10 µL	
			10,000 µL	±0.6 %	±60 µL	±0.15 %	±15 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

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Eppendorf Xplorer® plus

8-channel pipettes

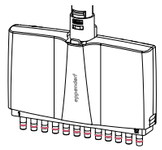
Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Xplorer® plus, 8-channel, variable							
0.5 – 10 µL	medium gray	0.5 µL	±10.0 %	±0.05 µL	±6.0 %	±0.03 µL	4861 000.767
		1 µL	±5.0 %	±0.05 µL	±3.0 %	±0.03 µL	
		5 µL	±3.0 %	±0.15 µL	±1.5 %	±0.075 µL	
		10 µL	±2.0 %	±0.2 µL	±0.8 %	±0.08 µL	
5 – 100 µL	yellow	5 µL	±6.0 %	±0.3 µL	±4.0 %	±0.2 µL	4861 000.783
		10 µL	±2.0 %	±0.2 µL	±2.0 %	±0.2 µL	
		50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
		100 µL	±0.8 %	±0.8 µL	±0.25 %	±0.25 µL	
15 – 300 µL	orange	15 µL	±6.0 %	±0.9 µL	±2.0 %	±0.3 µL	4861 000.805
		30 µL	±2.5 %	±0.75 µL	±1.0 %	±0.3 µL	
		150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
		300 µL	±0.6 %	±1.8 µL	±0.25 %	±0.75 µL	
50 – 1,200 µL	green	50 µL	±8.0 %	±4.0 µL	±1.2 %	±0.6 µL	4861 000.821
		120 µL	±6.0 %	±7.2 µL	±0.9 %	±1.08 µL	
		600 µL	±2.7 %	±16.2 µL	±0.4 %	±2.4 µL	
		1,200 µL	±1.2 %	±14.4 µL	±0.3 %	±3.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 8-channel pipettes please choose standard epT.I.P.S., see pages 56 - 61

12-channel pipettes



Ordering information

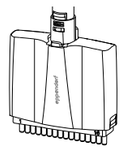
Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Xplorer® plus, 12-channel, variable							
0.5 – 10 µL	medium gray	0.5 µL	±10.0 %	±0.05 µL	±6.0 %	±0.03 µL	4861 000.775
		1 µL	±5.0 %	±0.05 µL	±3.0 %	±0.03 µL	
		5 µL	±3.0 %	±0.15 µL	±1.5 %	±0.075 µL	
		10 µL	±2.0 %	±0.2 µL	±0.8 %	±0.08 µL	
5 – 100 µL	yellow	5 µL	±6.0 %	±0.3 µL	±4.0 %	±0.2 µL	4861 000.791
		10 µL	±2.0 %	±0.2 µL	±2.0 %	±0.2 µL	
		50 µL	±1.0 %	±0.5 µL	±0.8 %	±0.4 µL	
		100 µL	±0.8 %	±0.8 µL	±0.25 %	±0.25 µL	
15 – 300 µL	orange	15 µL	±6.0 %	±0.9 µL	±2.0 %	±0.3 µL	4861 000.813
		30 µL	±2.5 %	±0.75 µL	±1.0 %	±0.3 µL	
		150 µL	±1.0 %	±1.5 µL	±0.5 %	±0.75 µL	
		300 µL	±0.6 %	±1.8 µL	±0.25 %	±0.75 µL	
50 – 1,200 µL	green	50 µL	±8.0 %	±4.0 µL	±1.2 %	±0.6 µL	4861 000.830
		120 µL	±6.0 %	±7.2 µL	±0.9 %	±1.08 µL	
		600 µL	±2.7 %	±16.2 µL	±0.4 %	±2.4 µL	
		1,200 µL	±1.2 %	±14.2 µL	±0.3 %	±3.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 12-channel pipettes please choose standard epT.I.P.S., see pages 56 - 61

New

16-channel pipettes, for 384-well plates



Ordering information

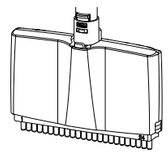
Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Xplorer® plus, 16-channel, variable							
1 – 20 µL	pearl white	2 µL	±10 %	±0.2 µL	±3.0 %	±0.06 µL	4861 000.778
		10 µL	±2.4 %	±0.24 µL	±1.2 %	±0.12 µL	
		20 µL	±0.4 %	±0.4 µL	±0.6 %	±0.12 µL	
5 – 100 µL	light yellow	10 µL	±3.0 %	±0.3 µL	±2.0 %	±0.2 µL	4861 000.792
		50 µL	±1.2 %	±0.6 µL	±1.0 %	±0.5 µL	
		100 µL	±1.0 %	±1.0 µL	±0.6 %	±0.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 16-channel pipettes please choose epT.I.P.S. 384, see pages 62 - 63

New

24-channel pipettes, for 384-well plates



Ordering information

Volume range	Color code	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Xplorer® plus, 24-channel, variable							
1 – 20 µL	pearl white	2 µL	±10 %	±0.20 µL	±3.0 %	±0.06 µL	4861 000.779
		10 µL	±2.4 %	±0.24 µL	±1.2 %	±0.12 µL	
		20 µL	±0.4 %	±0.4 µL	±0.6 %	±0.12 µL	
5 – 100 µL	light yellow	10 µL	±3.0 %	±0.3 µL	±2.0 %	±0.2 µL	4861 000.793
		50 µL	±1.2 %	±0.6 µL	±1.0 %	±0.5 µL	
		100 µL	±1.0 %	±1.0 µL	±0.6 %	±0.6 µL	

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

For 24-channel pipettes please choose epT.I.P.S. 384 see pages 62 - 63

Accessories

Description	Order no.
Power supply with power plug adapters, for Eppendorf Xplorer®/Xplorer plus, electronic Multipette®, and charger stand (4880)	4986 603.005
Power supply with power plug adapters, for charger carousel (4880)	4880 603.006
Protection filter 5 mL, 10 filters with 1 filter sleeve, for 0.5 – 5 mL variable Eppendorf Reference® 2, Eppendorf Research plus and Eppendorf Xplorer® (plus), color code: violet	4920 623.005
Protection filter 10 mL, 10 filters with 1 filter sleeve, for 1 – 10 mL variable Eppendorf Reference® 2, Eppendorf Research® plus and Eppendorf Xplorer® (plus), color code: turquoise	4920 624.001
O-ring for tip cones, 24 pcs., red, for 100 and 300 µL multi-channel pipettes, with mounting aid (1 set = 24 pieces)	3122 611.000
Cutting tool, for O-rings of 100 and 300 µL, for Eppendorf Research® plus/Eppendorf Xplorer®	3122 610.003
O-ring for tip cones, 24 pcs., red, for 1,200 µL multi-channel pipettes, (1 set = 24 pcs)	4860 716.009
Key, for detachment of 2 – 10 mL pipettes lower parts, for Eppendorf Research® plus, Eppendorf Reference® 2, Eppendorf Xplorer®	3120 634.002
Key, for detachment of 1,200 µL pipettes lower parts, for Eppendorf Xplorer®	4861 605.006
Locking ring, to prevent spring action of 10 mL to 1,000 µL single-channel pipettes tip cones	3120 635.009
Locking clip for 8-channel pipette, to prevent spring action of tip cones	3122 612.006
Locking clip for 12-channel pipette, to prevent spring action of tip cones	3122 613.002
Tip-Tub reagent reservoir 70 mL, autoclavable reservoir for aspirating liquids with multi-channel pipettes, 1 set = 10 reservoirs and 10 lids	0030 058.607
Eppendorf TrackIT, RFID Reader and Software	3903 000.014

Eppendorf Pipette Holder System

Description
Carousels, stands and wall mount devices: The new Pipette Holder System is perfect for all users of handheld liquid handling instruments, who need a highly flexible system for their Eppendorf pipettes and Multipette®. Carousels and stands provide a robust design with a small footprint. To save precious bench-top space carousels carry both manual and electronic instruments. And only Eppendorf offers a charger carousel with intelligent charging electronics that carries up to 6 instruments.

GERMAN DESIGN AWARD WINNER 2018 · DESIGN AWARD · reddot design award

1. The Pipette Carousel 2 for manual pipettes and the Charger Carousel 2 for electronic devices offer more flexibility and more capacity than ever before.
> Rotatable pipette holders carry all current manual Eppendorf pipettes and most predecessors
> Charger Carousel 2 for up to six electronic devices with magnetic power connector for fast and easy connection

2. With Charger Stand 2, the Eppendorf Xplorer/Xplorer plus or Multipette® E3/E3x is always fully charged and ready for use. Pipette Stand 2 carries one Multipette M4.
> Large rubber feet protect stands and carousels from liquids spilled on lab bench
> Charger Stand 2 with cord wrap functionality for more convenience

3. Place your pipette and Multipette where you need them: Mounted to a wall, on the shelf above your bench or inside a biological safety cabinet.
> Pictograms on all holders for clear assignment in the lab
> Pipette holders are downwards compatible for Eppendorf Research and Reference pipettes

Ordering information

Description	Order no.
Pipette Carousel 2, for 6 Eppendorf Research®, Eppendorf Research® plus, Eppendorf Reference®, Eppendorf Reference® 2 or Biomaster®, additional pipette holders are optionally available	3116 000.015
Charger Carousel 2, for 6 Eppendorf Xplorer® or Eppendorf Xplorer® plus, mains/power adapter included, additional charger shells and pipette holders are optionally available	3116 000.023
Charger Stand 2, for one Eppendorf Xplorer® or Eppendorf Xplorer® plus, operated with mains/power adapter supplied with Eppendorf Xplorer® or Eppendorf Xplorer® plus	3116 000.031
Charger Stand 2, for one Multipette® E3/E3x or Multipette® stream/Xstream, operated with mains/power adapter supplied with Multipette® E3/E3x or Multipette® stream/Xstream	3116 000.040
Pipette Stand 2, for one Multipette® M4, without charging functionality, additional pipette holders are optionally available	3116 000.058
Pipette Holder 2, for one Eppendorf Research®, Eppendorf Research® plus, Eppendorf Reference® 2 or Biomaster®, for Pipette Carousel 2 and Charger Carousel 2 or wall mounting, sticky tape included	3116 000.112
Pipette Holder 2, for one Eppendorf Xplorer® or Eppendorf Xplorer® plus, for Pipette Carousel 2 or wall mounting, sticky tape included, without charging functionality	3116 000.120
Pipette Holder 2, for one Multipette® E3/E3x or Multipette® stream/Xstream, for Pipette Carousel 2 or wall mounting, sticky tape included, without charging functionality	3116 000.139
Pipette Holder 2, for one Multipette® M4, for Pipette Carousel 2 and Charger Carousel 2 or wall mounting, sticky tape included	3116 000.147
Charger Shell 2, for one Eppendorf Xplorer® or Eppendorf Xplorer® plus, for Charger Carousel 2 (with charging functionality)	3116 602.007
Charger Shell 2, for one Multipette® E3/E3x or Multipette® stream/Xstream, for Charger Carousel 2 (with charging functionality)	3116 603.003

Your local distributor: www.eppendorf.com/contact
Eppendorf AG · Barkhausenweg 1 · 22339 Hamburg · Germany · eppendorf@eppendorf.com · www.eppendorf.com

Eppendorf Purity Grades for Tips

epT.I.P.S.®, ep Dualfilter T.I.P.S.® and Combitips advanced® stand for highest quality and purity
The high precision and accuracy of pipette tips and Combitips® is ensured by precise molding. Each lot of pipette tips and Combitips is subject to gravimetric measurement during final testing. Low wetting ensures reliable volume readings and minimal adhesion.
Pipette tips and Combitips cylinders are made of PP (polypropylene). A relatively inert plastic characterized by low wettability as well as high dimensional and mechanical stability across a wide temperature range. For the Combitips advanced pistons, PE (polyethylene) is used. This is due to the fact that ideal running properties between two parts can only be achieved by using two different types of plastic. Our tips are available in a variety of purity grades (see table opposite). For further details please read page 12-13.


eppendorf

Eppendorf Certificate

Certificate of Purity – PCR clean

This package contains a high quality consumable manufactured under the PCR clean Eppendorf Purity Standard.

The Eppendorf PCR clean consumables are produced in a class 6 (according to VDI 2083) and a class 100,000 (according to U.S. Fed. Stand. 209 D) clean room environment.

For this product Eppendorf certifies the following [*]:

Free of detectable
- Human DNA
- DNase
- RNase
- PCR inhibitors

Quality control and subsequent certification is done by an independent laboratory (accredited by DAkkS). Lot-specific certificates are available on request or on the internet at **www.eppendorf.com/certificates**.

The certification comprises the following tests:

Human DNA Contamination Test

A PCR master mix is prepared using the QuantiTect® Sybr® Green PCR Kit (Qiagen®) and primer for the detection of human DNA. The primers amplify a 294 bp fragment present in more than 1×10^5 copies per human cell. The master mix (15 µl) is added to 5 positive control vessels containing known amounts of human DNA (32, 16, 8, 4 and 2 pg in 10 µL H_2O) plus a negative control (10 µL DNA-free H_2O).

15 samples are rinsed one after another with DNA-free water. 10 µL of this solution is added to 15 µL master mix. PCR is done for 30 cycles.

The emittance of Sybr Green-induced fluorescence is detected in samples and controls. For the samples to pass certification, no fluorescence must be found corresponding to the negative control.

DNase Test

15 samples are rinsed one after another with DNA-free water. 17 µL of these solutions are mixed with 3 µl DNase-buffer containing 100 bp DNA-ladder in a DNase-free tube. A positive control is spiked with DNase, a negative control contains DNA-free water. All tubes are incubated for 24 h at 37 °C.

Page 1 of 2

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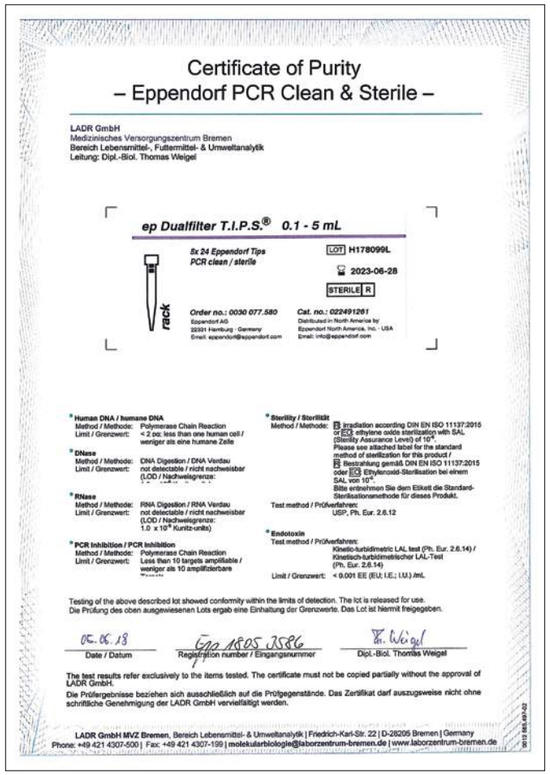
www.eppendorf.com


Certificate of Purity
– Eppendorf PCR Clean & Sterile –

LADR GmbH
Medizinisches Versorgungszentrum Bremen
Bereich Lebensmittel-, Futtermittel- & Umweltanalytik
Leitung: Dipl.-Biol. Thomas Weigel

ep Dualfilter T.I.P.S.® 0.1 - 5 mL

5x 24 Eppendorf Tips
PCR clean / sterile

LOT H178099L

2023-06-28

STERILE R

rack

Order no.: 0030 077.580
Eppendorf AG
22331 Hamburg · Germany
Email: eppendorf@eppendorf.com

Cat. no.: 022491261
Distributed in North America by
Eppendorf North America, Inc. · USA
Email: info@eppendorf.com

* Human DNA / humane DNA
Method / Methode: Polymerase Chain Reaction
Limit / Grenzwert: < 2 pg; less than one human cell / weniger als eine humane Zelle

* DNase
Method / Methode: DNA Digestion / DNA Verdau
Limit / Grenzwert: not detectable / nicht nachweisbar (LOD / Nachweisgrenze:

* RNase
Method / Methode: RNA Digestion / RNA Verdau
Limit / Grenzwert: not detectable / nicht nachweisbar (LOD / Nachweisgrenze: 1.0×10^{-8} Kunitz-units)

* PCR Inhibition / PCR Inhibition
Method / Methode: Polymerase Chain Reaction
Limit / Grenzwert: Less than 10 targets amplifiable / weniger als 10 amplifizierbare

* Sterility / Sterilität
Method / Methode: R irradiation according DIN EN ISO 11137:2015 or EO ethylene oxide sterilization with SAL (Sterility Assurance Level) of 10^{-6}.
Please see attached label for the standard method of sterilization for this product /
R Bestrahlung gemäß DIN EN ISO 11137:2015 oder EO Ethylenoxid-Sterilisation bei einem SAL von 10^{-6}.
Bitte entnehmen Sie dem Etikett die Standard-Sterilisationsmethode für dieses Produkt.

Test method / Prüfverfahren: USP, Ph. Eur. 2.6.12

* Endotoxin
Test method / Prüfverfahren: Kinetic-turbidimetric LAL test (Ph. Eur. 2.6.14) / Kinetisch-turbidimetrischer LAL-Test (Ph. Eur. 2.6.14)
Limit / Grenzwert: < 0.001 EE (EU; I.E.; I.U.)/mL

Testing of the above described lot showed conformity within the limits of detection. The lot is released for use.
Die Prüfung des oben ausgewiesenen Lots ergab eine Einhaltung der Grenzwerte. Das Lot ist hiermit freigegeben.

06.06.18
Date / Datum

Epp 1805 2586
Registration number / Eingangsnummer

T. Weigel
Dipl.-Biol. Thomas Weigel

The test results refer exclusively to the items tested. The certificate must not be copied partially without the approval of LADR GmbH.
Die Prüfergebnisse beziehen sich ausschließlich auf die Prüfgegenstände. Das Zertifikat darf auszugsweise nicht ohne schriftliche Genehmigung der LADR GmbH vervielfältigt werden.

LADR GmbH MVZ Bremen, Bereich Lebensmittel- & Umweltanalytik | Friedrich-Karl-Str. 22 | D-28205 Bremen | Germany
Phone: +49 421 4307-500 | Fax: +49 421 4307-199 | molekularbiologie@laborzentrum-bremen.de | www.laborzentrum-bremen.de

Pure quality
With the strictest control criteria, internally and externally monitored, we ensure the consistently high quality of our products – from lot to lot. Our consumables are available in a variety of purity qualities. Eppendorf Quality™ as well as more advanced purity grades: "Sterile, Protein-free, PCR clean, Eppendorf Forensic DNA Grade, and Biopur®". In addition to our internal process controls and general quality certificates, lot-specific certificates are provided by an external accredited laboratory for the Sterile, Protein-free, PCR clean, Eppendorf Forensic DNA Grade, and Biopur purity grades. This allows us to consistently meet our customer's high demands when it comes to purity (www.eppendorf.com/purity). As a special service, we make the inspection certificate for each delivered lot available online (www.eppendorf.com/certificates).

Purity grades						
Eppendorf purity grades for tips	**Eppendorf Quality™**	**Eppendorf sterile**	**Eppendorf PCR clean**	**Eppendorf sterile and PCR clean**	**Eppendorf Forensic DNA Grade[4)]**	**Biopur®**
Continuous quality control for the following relevant criteria:						
Function, tightness, precision	■	■	■	■	■	■
Low wetting	■	■	■	■	■	■
High chemical resistance	■	■	■	■	■	■
High thermal resistance	■	■	■	■	■	■
High resistance to centrifugation forces[1)]	■	■	■	■	■	■
High transparency	■	■	■	■	■	■
Precisely shaped	■	■	■	■	■	■
Lot-specific certified[2)] for the following purity criteria:						
Pyrogen-free (endotoxin-free)		■		■		■
Sterile (Ph.Eur./USP)		■		■		■
Human DNA-free			■	■	■	■
DNA-free (human- and bacteria DNA)						■
DNase-free			■	■	■	■
RNase-free			■	■	■	■
PCR-inhibitor-free			■	■	■	■
ATP-free						■
Eppendorf tips						
epT.I.P.S.® Standard, Box and Set	■					
epT.I.P.S.® Reloads	■		■			
epT.I.P.S.® Racks		■[3)]				■
epT.I.P.S.® Singles						■
ep Dualfilter T.I.P.S.®				■	■	
ep Dualfilter T.I.P.S.® SealMax				■		
ep Dualfilter T.I.P.S.® LoRetention				■		
Combitips advanced®	■	■[3)]	■		■	■
ViscoTip®	■					
epT.I.P.S.® LoRetention	■		■			
epT.I.P.S.® Motion	■	■				
epT.I.P.S.® Motion filtertips		■	■	■		

[1)] For accurate details regarding resistance to centrifugation, please refer to the respective product pages. [2)] Lot-specific certificate can be downloaded from www.eppendorf.com/certificates. [3)] Only available in North America. [4)] According to ISO 18385.

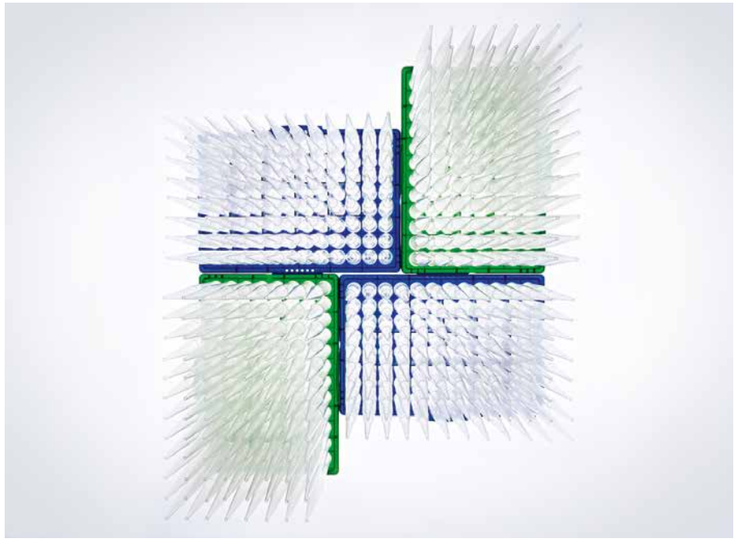
www.eppendorf.com/puritygrades-brochure

epT.I.P.S.®

Description
For epT.I.P.S. – the original Eppendorf „Totally Integrated Pipetting System" – the tips are optimally coordinated to Eppendorf pipettes and, of course, meet EN ISO 8655 requirements. This has resulted in minimal attachment and ejection forces with the highest level of tightness. epT.I.P.S. pipette tips can be used with pipettes from other manufacturers. Optimal wetting properties, high transparency and special, certified purity grades are the visible expression of our product and production philosophy.

Product features
> The ergonomically optimized cone geometry provides the optimal pipette fit on the Eppendorf pipette
> epT.I.P.S. pipette tips can be used universally, including pipette models from other manufacturers
> Fine graduations make visual checks of the pipetting volume even easier
> Long, narrow tips reach the base of narrow and high vessels without touching the top of the vessel edge
> Fine retracted or extended tips simplify work with small volumes
> Available in purity grades of: Eppendorf Quality, PCR clean, Biopur®
> Color-coded trays make volume identification and allocation of Eppendorf pipettes easier than ever
> Also available for 16- and 24-channel pipettes

Applications
> Pipetting liquids
> Dispensing liquids
> Mixing liquids
> Filling plates and reaction vessels
> Filling gels for electrophoresis
> Phase extraction and removal of supernatants
> For applications in 384-microplate format we recommend using 16- or 24-channel pipettes together with epT.I.P.S. 384



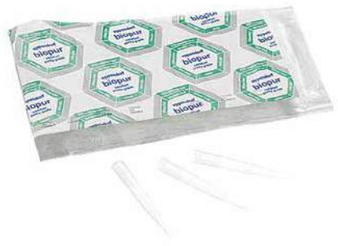
www.eppendorf.com/appnote354

i For more information go to www.eppendorf.com/epTips

epT.I.P.S.® Standard
> Original, high-quality Eppendorf pipette tips packaged in resealable bags
> Available in sizes from 10 µL to 10 mL in Eppendorf Quality purity grade
> epT.I.P.S. Standard 200 µL, 300 µL and 1,000 µL tips are also available color-coded yellow and blue
> epT.I.P.S. Standard pipette tips can be autoclaved at 121 °C in 20 min.

epT.I.P.S.® Box/epT.I.P.S.® Set
> Contamination-free transfer of trays to stable working box
> System optimized for use with multi-channel pipettes
> Color-coded trays for simple identification of tips and pipette
> Tips can be attached to pipette from refill trays
> Boxes and trays are autoclavable
> epT.I.P.S. Box and epT.I.P.S. Set available in Eppendorf Quality

epT.I.P.S.® Racks
> Eppendorf Biopur pipette tips in Racks offer the highest biological purity
> Ensured PCR clean, sterile, pyrogen-, ATP- and DNA-free
> For use in pharmaceutical and food industry, molecular biology and cell technology
> Each production lot inspected continuously by an independent laboratory
> Lot-specific certificates available at www.eppendorf.com/certificates
> Packed in racks with 96, 48 or 24 tips



epT.I.P.S.® Singles
> Eppendorf Biopur pipette tip, individually wrapped
> Ensured PCR clean, sterile, pyrogen-, ATP- and DNA-free
> For use in pharmaceutical and food industry, molecular biology and cell technology
> Batch number and expiration date on each blister package
> Each production lot inspected continuously by an independent laboratory
> Lot-specific certificates available at www.eppendorf.com/certificates

Your local distributor: www.eppendorf.com/contact
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epT.I.P.S.®

epT.I.P.S.® Reloads
> Reduced waste as compared with disposable racks
> The refill trays can be autoclaved up to 121 °C, in packaging and without foil, for subsequent use
> The refill system, depending on tip size, is packaged as either dual-sided or in stack form
> Available in purity grades of Eppendorf Quality and PCR clean
> Color-coded trays for simple volume and pipette identification

Special Tips

epT.I.P.S.® 384
> Optimized for applications in 384-well plate format
> Suitable for the usage of 16- and 24-channel pipettes
> For even and simultaneous filling of all 16 or 24 wells of a 384-well plate in just one step
> Enabling for equal starting conditions in each well of a row or column in plate assays, thus increasing reproducibility to a maximum
> Available as epT.I.P.S. 384 Reloads (10 refill trays with 384 tips each) and epT.I.P.S. Box/ epT.I.P.S. 384 Set (box plus 5 refill trays with 384 tips each)
> Volume range: 20 and 100 µL

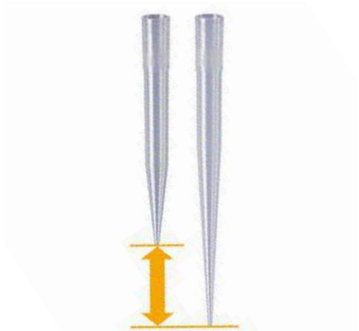
GELoader®
> Special tip for gel electrophoresis, loading of polyacrylamide gels
> Flexible long and narrow tips for handling of smallest volumes
> GELoader tips and rack autoclavable
> Highest precision and accuracy when used with Eppendorf pipettes for 0.5 to 10 µL (gray control button)

Microloader™
> Extremely long, fine and flexible tip for filling of microcapillaries for microinjection and where additional reach is needed
> Microloader tips and rack autoclavable
> Highest precision and accuracy when used with Eppendorf pipettes for 0.5 to 10 µL (gray control button)

➢ Ordering information see page 56

epT.I.P.S.® Long

Description
With the slim design of the extra long epT.I.P.S. and ep Dualfilter T.I.P.S.® pipette tips, you always achieve best results when pipetting into Eppendorf Tubes® 5.0 mL, conical tubes, cell culture flasks, deep wells and other deep vessels. Furthermore, the risk of touching the walls of these deep vessels is minimized and cross-contamination is prevented. Extra long epT.I.P.S. are available in the following volumes:
> 0.5 – 20 µL L (46 mm)
> 50 – 1,250 µL L (103 mm)
> 0.2 – 5 mL L (175 mm)
> 0.5 – 10 mL L (243 mm)



Product features
> Slim design of the extra long epT.I.P.S. and ep Dualfilter T.I.P.S. pipette tips
> Always obtain best results when pipetting from and into Eppendorf Tubes® 5.0 mL, conical tubes, cell culture flasks, deep wells and other deep vessels
> The risk of touching the walls of deep vessels is minimized and cross-contamination is prevented
> Available in Eppendorf Quality, PCR clean, PCR clean/Sterile (sterile and pyrogen-free), and Biopur® purity grades
> Also available as ep Dualfilter T.I.P.S. filter tips

Applications
> Pipetting liquids
> Dispensing liquids
> Mixing liquids
> Filling plates and reaction vessels
> Filling gels for electrophoresis
> Phase extraction and removal of supernatants

www.eppendorf.com/eptips-video

i For more information go to www.eppendorf.com/epTips

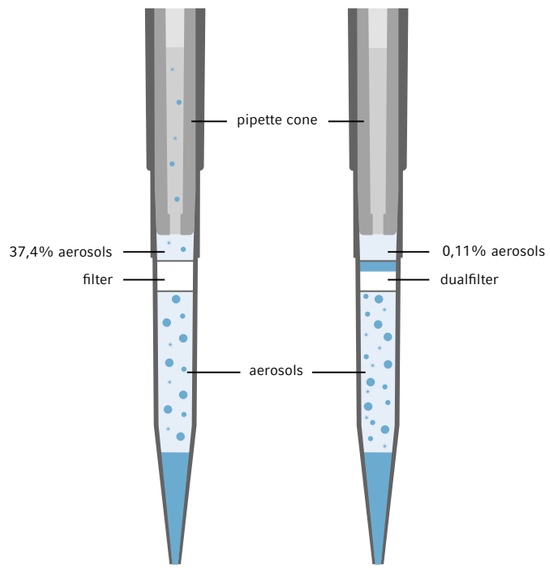
Your local distributor: www.eppendorf.com/contact
Eppendorf AG · Barkhausenweg 1 · 22339 Hamburg · Germany · eppendorf@eppendorf.com · www.eppendorf.com

ep Dualfilter T.I.P.S.®

Description
ep Dualfilter T.I.P.S. filter tips are filter tips with a two-phase filter for contamination protection. The two filter layers made of flexible, hydrophobic material, fit perfectly in the tip cone and retain practically 100 % of all aerosols[1)] and biomolecules. This filtering effect is achieved using various, well-defined pore sizes. The layer facing the sample provides protection from drops, splashes and aerosols. The layer facing the pipette cone functions as a second barrier from contamination, and dependably binds biomolecules. A defined air passage rate ensures full sample recovery and the customary quick pipetting.

Product features
> Dual protection against aerosols[1)] and biomolecules
> Dual protection for pipette and sample
> Free of PCR inhibitor additives
> Available in Eppendorf PCR clean/Sterile (sterile and pyrogen-free) and Eppendorf Forensic DNA Grade
> Tested at the Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM) in Hannover, Germany
> Continuous inspection of each production lot by an independent laboratory
> Lot-specific certificates are available at: www.eppendorf.com/certificates
> Certificate of filter efficiency acc. to EN 1822 available at: www.eppendorf.com/certificates
> Also available for 16- and 24-channel pipettes

Applications
> DNA applications (e.g. PCR)
> RNA applications (e.g. gene expression analysis)
> Protein applications (e.g. antibody research)
> Cell culture applications (e.g. media)
> Applications with radio actives
> All applications which use aerosol[1)] binding liquids
> For applications in 384-microplate format we recommend using 16- or 24-channel pipettes together with epT.I.P.S.® 384



Competitor filtertip **ep Dualfilter T.I.P.S.®**

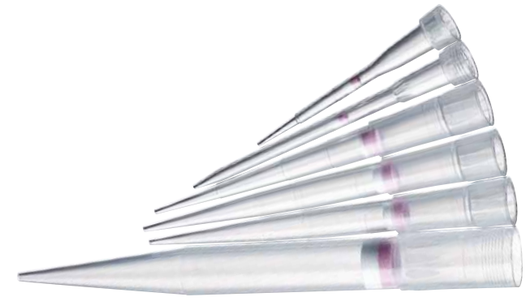
The unmistakable blue and white filter layers are made of flexible, hydrophobic material to fit perfectly in the tip cone and retain practically 100 % of all aerosols[1)] and biomolecules. This unique filtering effect is achieved using various well-defined pore sizes in the two filter layers.

[1)] An aerosol is a colloid of fine solid particles or liquid droplets in air or another gas.

➢ Ordering information see page 60

ep Dualfilter T.I.P.S.® SealMax

Description
The violet and white filter for the ep Dualfilter T.I.P.S.® SealMax filter tips combine a reliable contamination protection for your pipette from your sample liquid with virtually 100 % protection from aerosols[1)] and biomolecules. This Dualfilter closes immediately when it comes into contact with the overpipetted sample without inhibiting valuable material. Additionally drops and splashes are retained by the white layer, the violet layer forms the highly-effective barrier against sample liquid. Further information and certification on specific sample recovery features, PCR inhibition and aerosol protection are available on your local Eppendorf website.

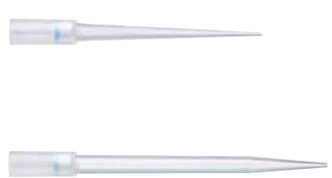


Product features
> Reliable protection from liquids
> Reliable protection from aerosols[1)] and biomolecules
> No PCR inhibiting additives
> Protection of your pipette from aggressive liquids when over-aspiration occurs
> Available in PCR clean/Sterile (sterile and pyrogen-free)
> Continuous inspection of each production lot by an independent laboratory ensures high purity and quality
> Lot specific purity certificates available at: www.eppendorf.com/certificates
> Certificate of filter efficiency acc. to EN 1822 available at: www.eppendorf.com/certificates

Applications
> DNA applications (e.g. PCR)
> RNA applications (e.g. gene expression analysis)
> Protein applications (e.g. antibody research)
> Cell culture applications (e.g. media)
> Applications with radio actives
> All applications which use aerosol[1)] binding liquids

[1)] An aerosol is a colloid of fine solid particles or liquid droplets in air or another gas.

Special Tips



ep Dualfilter T.I.P.S. 384
> Optimized for applications in 384-well plate format
> Suitable for the usage of 16- and 24-channel pipettes
> For even and simultaneous filling of all 16 or 24 wells of a 384-well plate in just one step
> Enabling for equal starting conditions in each well of a row or column in plate assays, thus increasing reproducibility to a maximum
> Available as ep Dualfilter T.I.P.S. 384 Racks
> Volume range: 20 and 100 µL
> Purity grade: All tips are PCR clean and sterile

i For more information go to www.eppendorf.com/epTips

epT.I.P.S.® LoRetention

Description
epT.I.P.S. LoRetention pipette tips and ep Dualfilter T.I.P.S. LoRetention filter tips are particularly well-suited for applications with samples that contain detergents. Detergents or detergent containing liquids lower the liquid's surface tension. This leads to a phenomenon called "wetting": Residual liquid sticks to the tip wall and cannot be recovered. The invisible film left behind in standard tips shows a significantly high amount of valuable sample material which becomes discarded together with the tip.
Particularly when it comes to sensitive PCR and *real-time* PCR applications or NGS library preparation, low retention surfaces can increase the reproducibility and significantly reduce the loss of expensive reagents.
The low retention property of epT.I.P.S. LoRetention pipette tips and ep Dualfilter T.I.P.S. LoRetention filter tips is generated by an ultrahydrophobic, extremely homogeneous surface. It is achieved through an innovative treatment at the molecular level – the "Pearl Effect" Technology. All pipette tips are uncoated, free of additives and do not leach into the sample. Liquids containing detergents simply roll off, so that practically no liquid remains in the tip. These outstanding material properties ensure maximized sample recovery for cost saving and improved reproducibility.

The "Pearl Effect" – a comparison of the amount of residual liquid when pipetting solutions that contain detergents:
1. Significant loss of sample using standard tips
2. Maximum recovery with epT.I.P.S. LoRetention

Applications
> Cell culture (media)
> Genomics: PCR, RT-PCR, qPCR and all other types of PCR
> Enzymatic reactions (restriction decomposition, ligation)
> Isolation and purification of nucleic acid
> Gel electrophoresis (e.g., prefabricated DNA ladders) typical detergents: SDS, Triton®, X-100, Brij® 35, Tween® 20, CHAPS
> Proteomics (all types of protein examinations)
> Protein isolation and purification
> NGS library preparation

Product features
> Ultrahomogenous surface for maximum reproducibility
> Ultrahydrophobic surface for minimal sample loss
> Significantly reduced foam formation during pipetting
> Extreme resistance to chemicals
> Available in PCR clean and Eppendorf Quality
> Also available as ep Dualfilter T.I.P.S. in PCR clean/Sterile (sterile and pyrogen-free)
> No coating
> Lot-specific certificates are available at: www.eppendorf.com/certificates.

➢ Ordering information see page 58

Maximum reproducibility in genomics
epT.I.P.S. LoRetention are especially recommended for applications where highest precision of DNA/RNA analysis results are needed, such as for PCR and *real-time* PCR. For example, expensive master mixes and enzyme solutions tend to adhere to the tip´s inner surface. Specially treated low retention surfaces are created to repel detergent solutions to a maximum – for minimum loss of your valuable sample.

Examples for liquids with wetting effect:
> Master mixes
> Enzyme solutions: enzyme restrictions, ligation, DNase
> DNA ladders for gel electrophoresis

epT.I.P.S. LoRetention perform considerably better in terms of precision and sample recovery than standard pipette tips as shown in **Fig. 1.**

Maximum reproducibility in proteomics
Not only in molecular biology, high sensitivity detection methods require extreme reliability and reproducibility in pipetting. Also in protein analysis and purification, the reagents and samples often contain detergents, like e.g. SDS-Page. By minimizing sample retention and improving reproducibility of pipetting, epT.I.P.S. LoRetention pipette tips and ep Dualfilter T.I.P.S. LoRetention filter tips are especially advantageous in proteomic applications.

Routine protein applications:
> Isolation
> Purification
> Denaturation

The facts are self-explanatory – when compared to standard pipette tips, epT.I.P.S. LoRetention showed markedly better results in terms of precision and sample recovery, as displayed in **Fig. 1 and 2.**

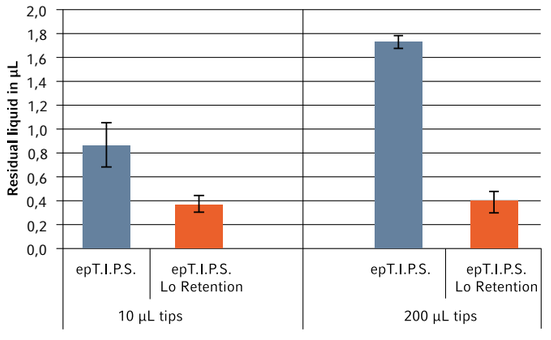


Fig. 1:
Comparison of residual liquid of epT.I.P.S. and epT.I.P.S. LoRetention with master mix for *real-time* PCR. Once the liquid had been dispensed, the residual liquid in the tips was determined. The measurements were repeated several times and the standard deviation was determined. epT.I.P.S. LoRetention resulted in the lowest residual liquid.

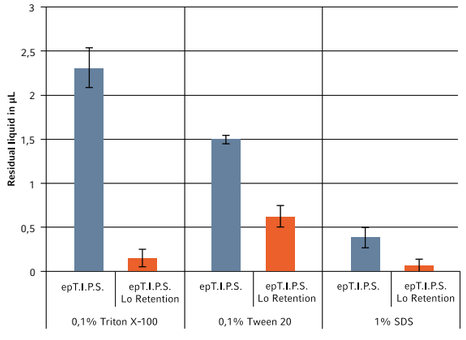


Fig. 2:
Comparison of resistance of the low retention property when subjected to solvents typically used in proteomics. 200 µL epT.I.P.S. and epT.I.P.S. LoRetention were treated with the solvents specified. An enzymatic buffer containing detergents was then pipetted and the residual moisture was determined. epT.I.P.S. LoRetention resulted in reproducible low levels of residual liquids.

i For more information go to www.eppendorf.com/LoRetention

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Volume range/epT.I.P.S.® epT.I.P.S.® LoRetention (all tips shown are actual size)	Standard/Bulk	Reloads	Reloads	Box	Set	Singles	Racks
	eppendorf guaranteed quality	eppendorf guaranteed quality	eppendorf PCR clean certified purity grade	eppendorf guaranteed quality	eppendorf guaranteed quality	eppendorf biopur certified purity grade	eppendorf biopur certified purity grade
dark gray	1,000 tips (2 bags × 500 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips	480 tips (5 trays × 96 tips), 1 reusable box		
0.1 – 10 µL, 34 mm 	0030 000.811	0030 073.363 0030 072.049 LoRetention	0030 073.746 0030 072.006 LoRetention	0030 073.002	0030 073.207 0030 072.251 LoRetention		
medium gray	1,000 tips (2 bags × 500 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips	480 tips (5 trays × 96 tips), 1 reusable box	100 tips, individually packed	480 tips (5 racks × 96 tips)
0.1 – 20 µL, 40 mm 	0030 000.838	0030 073.380	0030 073.762	0030 073.029	0030 073.223	0030 010.019	0030 075.005
light gray	1,000 tips (2 bags × 500 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips	480 tips (5 trays × 96 tips), 1 reusable box		
0.5 – 20 µL L, 46 mm 	0030 000.854	0030 073.401 0030 072.057 LoRetention	0030 073.789 0030 072.014 LoRetention	0030 073.045	0030 073.240 0030 072.260 LoRetention		
yellow	1,000 tips (2 bags × 500 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips	480 tips (5 trays × 96 tips), 1 reusable box	100 tips, individually packed	480 tips (5 racks × 96 tips)
2 – 200 µL, 53 mm 	0030 000.889 0030 000.870 yellow tips	0030 073.428 0030 072.065 LoRetention	0030 073.800 0030 072.022 LoRetention	0030 073.061	0030 073.266 0030 072.278 LoRetention	0030 010.035	0030 075.021
orange	1,000 tips (2 bags × 500 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips	480 tips (5 trays × 96 tips), 1 reusable box		480 tips (5 racks × 96 tips)
20 – 300 µL, 55 mm 	0030 000.900 0030 000.897 yellow tips	0030 073.444	0030 073.827	0030 073.088	0030 073.282		0030 075.048
blue	1,000 tips (2 bags × 500 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips	480 tips (5 trays × 96 tips), 1 reusable box	100 tips, individually packed	480 tips (5 racks × 96 tips)
50 – 1000 µL, 71 mm 	0030 000.927 0030 000.919 blue tips	0030 073.460 0030 072.073 LoRetention	0030 073.843 0030 072.030 LoRetention	0030 073.100	0030 073.304 0030 072.286 LoRetention	0030 010.051	0030 075.064
green	1,000 tips (4 bags × 250 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips	480 tips (5 trays × 96 tips), 1 reusable box		480 tips (5 racks × 96 tips)
50 – 1250 µL, 76 mm 	0030 000.935	0030 073.487	0030 073.860	0030 073.126	0030 073.320		0030 075.080

Technical specifications subject to change.

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Volume range/epT.I.P.S.® epT.I.P.S.® LoRetention (all tips shown are actual size)	Standard/Bulk	Reloads	Reloads	Box	Set	Singles	Racks
	eppendorf guaranteed quality	eppendorf guaranteed quality	eppendorf PCR clean certified purity grade	eppendorf guaranteed quality	eppendorf guaranteed quality	eppendorf biopur certified purity grade	eppendorf biopur certified purity grade
dark green	1,000 tips (4 bags × 250 tips)	960 tips (10 trays × 96 tips)	960 tips (10 trays × 96 tips)	1 reusable box × 96 tips			480 tips (5 racks × 96 tips)
50 – 1,250 µL L, 103 mm	0030 000.730	0030 073.606	0030 073.614	0030 073.622			0030 075.129
							
red	500 tips (5 bags × 100 tips)	480 tips (10 trays × 48 tips)	480 tips (10 trays × 48 tips)	1 reusable box × 48 tips	240 tips (5 trays × 48 tips), 1 reusable box		240 tips (5 racks × 48 tips)
0.25 – 2.5 mL, 115 mm	0030 000.951	0030 073.509	0030 073.886	0030 073.142	0030 073.347		0030 075.102
							
violet	500 tips (5 bags × 100 tips)			1 reusable box × 24 tips			120 tips (5 racks × 24 tips)
0.1 – 5 mL, 120 mm	0030 000.978			0030 073.169			0030 075.137
							
violet	300 tips (3 bags × 100 tips)						120 tips (5 racks × 24 tips)
0.2 – 5 mL L, 175 mm	0030 000.650						0030 075.188
							
turquoise	200 tips (2 bags × 100 tips)						120 tips (5 racks × 24 tips)
0.5 – 10 mL, 165 mm	0030 000.765						0030 075.145
							
turquoise	200 tips (2 bags × 100 tips)						
0.5 – 10 mL L, 243 mm	0030 000.781						
							

(Image reduzed size)

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Volume range/ ep Dualfilter T.I.P.S.®/ ep Dualfilter T.I.P.S.® LoRetention/ ep Dualfilter T.I.P.S.® SealMax	Racks	eppendorf PCR clean certified purity grade	eppendorf sterile certified purity grade	eppendorf Forensic DNA Grade certified purity grade according to ISO 18385
dark gray	960 tips (10 racks × 96 tips)			
0.1 – 10 µL S, 34 mm	0030 077.504	0030 077.610 LoRetention	0030 077.806 SealMax	
				
medium gray	960 tips (10 racks × 96 tips)			
0.1 – 10 µL M, 40 mm	0030 077.512			0030 077.768
				
light gray	960 tips (10 racks × 96 tips)			
0.5 – 20 µL L, 46 mm	0030 077.520	0030 077.628 LoRetention	0030 077.814 SealMax	
				
yellow	960 tips (10 racks × 96 tips)			
2 – 20 µL, 53 mm	0030 077.539			0030 077.776
				
yellow	960 tips (10 racks × 96 tips)			
2 – 100 µL, 53 mm	0030 077.547	0030 077.644 LoRetention	0030 077.822 SealMax	
				
yellow	960 tips (10 racks × 96 tips)	New		
2 – 200 µL, 55 mm	0030 077.555	0030 077.741* LoRetention	0030 077.830 SealMax	0030 077.784
				
orange	960 tips (10 racks × 96 tips)			
20 – 300 µL, 55 mm	0030 077.563	0030 077.636 LoRetention	0030 077.849 SealMax	
				
blue	960 tips (10 racks × 96 tips)			
50 – 1,000 µL, 76 mm	0030 077.571	0030 077.652 LoRetention	0030 077.857 SealMax	0030 077.792
				
dark green	480 tips (5 racks × 96 tips)			
50 – 1,250 µL L, 103 mm	0030 077.750			
				

* coming soon

Volume range/ ep Dualfilter T.I.P.S.®/ ep Dualfilter T.I.P.S.® LoRetention/ ep Dualfilter T.I.P.S.® SealMax	Racks	eppendorf PCR clean certified purity grade	eppendorf sterile certified purity grade
violet	120 tips (5 racks × 24 tips)		
0.1 – 5 mL, 120 mm	0030 077.580		
			
violet	120 tips (5 racks × 24 tips)		
0.2 – 5 mL L, 175 mm	0030 077.725		
			
turquoise	100 tips, individually packed		
0.5 – 10 mL L, 243 mm	0030 077.598		
			

(Image reduced size)

Special Tips

Volume range/ pipette tip	eppendorf guaranteed quality
light gray	GELoader®
0.5 – 20 µL, 62 mm	192 tips (2 racks × 96 tips)
	0030 001.222
light gray	Microloader™
0.5 – 20 µL, 100 mm	192 pcs. (2 racks × 96 pcs.)
	5242 956.003
light gray	Mastertip®
20 µL, 52 mm	480 tips (5 racks × 96 tips)
	0030 001.320

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Special Tips
Tips for 16- and 24-Channel Pipettes

Volume range/epT.I.P.S.® 384	Reloads	Reloads	Set
pearl white			
0.1 – 20 µL, 42 mm	3,840 tips (10 trays × 384 tips) 0030 076.001	3,840 tips (10 trays × 384 tips) 0030 076.044	1,920 tips (5 trays × 384 tips), 1 reusable box 0030 076.028
light yellow			
0.5 – 100 µL, 52.8 mm 	3,840 tips (10 trays × 384 tips) 0030 076.010	3,840 tips (10 trays × 384 tips) 0030 076.052	1,920 tips (5 trays × 384 tips), 1 reusable box 0030 076.036

Combination of epT.I.P.S.® pipette tips with Research plus pipettes

Eppendorf Research® plus	0.1 – 10 µL dark gray	0.1 – 10 µL M medium gray	0.1 – 20 µL medium gray	0.5 – 20 µL L light gray	0.1 – 20 µL pearl white	0.5 – 100 µL light yellow	2 – 20 µL yellow	2 – 100 µL yellow	2 – 200 µL yellow
epT.I.P.S.®	■		■	■	■	■	■	■	■
epT.I.P.S.® LoRetention	■			■					■
ep Dualfilter T.I.P.S.®	■	■		■	■	■	■	■	■
ep Dualfilter T.I.P.S.® LoRetention	■			■				■	
ep Dualfilter T.I.P.S.® SealMax	■			■				■	■
Fixed volume, single channel pipettes									
10 µL	■	■	■	■					
20 µL		■	■	■					
10 µL							■	■	■
20 µL							■	■	■
25 µL/50 µL/100 µL								■	■
200 µL									■
200/250/500/1,000 µL									
Variable volume, single-, 8- and 12-channel pipettes									
0.1 – 2.5 µL	■	■	■						
0.5 – 10 µL	■	■	■	■					
2 – 20 µL	◆	◆	■	■					
2 – 20 µL							■	■	■
10 – 100 µL							◆	■	■
20 – 200 µL							◆	◆	■
30 – 300 µL							◆	◆	◆
100 – 1,000 µL									
120 – 1,200 µL									
0.25 – 2.5 mL									
0.5 – 5 mL									
1 – 10 mL									
Variable volume, 16- and 24-channel pipettes									
1 – 20 µL					■				
5 – 100 µL						■			

■ normal volume ◆ limited volume

Technical specifications subject to change.

Volume range/Dualfilter T.I.P.S. 384	Racks
pearl white	
0.1 – 20 µL, 42 mm 	3,840 tips (10 racks × 384 tips) 0030 078.403
light yellow	
0.5 – 100 µL, 53 mm 	3,840 tips (10 racks × 384 tips) 0030 078.411

20 – 300 µL orange	50 – 1,000 µL blue	50 – 1,250 µL green	50 – 1,250 µL L dark green	0.25 – 2.5 mL red	0.1 – 5 mL violet	0.2 – 5 mL L violet	0.5 – 10 mL turquoise	0.5 – 10 mL L turquoise	GELoader/ Microloader 0.5-20 µL
■	■	■	■	■	■	■	■	■	
	■								
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Combination of epT.I.P.S.® pipette tips with Reference 2 pipettes

Eppendorf Reference® 2	0.1 – 10 µL S dark gray	0.1 – 10 µL M medium gray	0.1 – 20 µL medium gray	0.5 – 20 µL L light gray	2 – 20 µL yellow	2 – 100 µL yellow	2 – 200 µL yellow	20 – 300 µL orange
epT.I.P.S.®	■		■	■		■	■	■
epT.I.P.S.® LoRetention	■			■			■	
ep Dualfilter T.I.P.S.®	■	■		■	■	■	■	■
ep Dualfilter T.I.P.S.® LoRetention	■			■		■		■
ep Dualfilter T.I.P.S.® SealMax	■			■		■	■	■
Fixed volume								
1 µL/2 µL	■	■	■					
5 µL/10 µL	■	■	■	■				
20 µL			■	■				
10 µL					■	■	■	
20 µL					■	■	■	■
25 µL/50 µL/100 µL						■	■	■
200 µL							■	■
200/250/500/1,000 µL								
2 mL/2.5 mL								
Adjustable volume								
0.1 – 2.5 µL	■	■	■					
0.5 – 10 µL	■	■	■	■				
2 – 20 µL	◆	◆	■	■				
2 – 20 µL					■	■	■	◆
10 – 100 µL					◆	■	■	■
20 – 200 µL					◆	◆	■	■
30 – 300 µL					◆	◆	◆	■
100 – 1,000 µL								
0.25 – 2.5 mL								
0.5 – 5 mL								
1 – 10 mL								

■ normal volume ◆ limited volume

50 – 1,000 µL blue	50 – 1,250 µL green	50 – 1,250 µL L dark green	0.25 – 2.5 mL red	0.1 – 5 mL violet	0.2 – 5 mL L violet	0.5 – 10 mL turquoise	0.5 – 10 mL L turquoise	GELoader/ Microloader
■	■	■	■	■	■	■	■	■
■								
■		■		■	■	■		
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								■
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Combination of epT.I.P.S.® pipette tips with Xplorer/Xplorer plus pipettes

Eppendorf Xplorer®/ Eppendorf Xplorer® plus	0.1 – 10 µL dark gray	0.1 – 10 µL M medium gray	0.1 – 20 µL medium gray	0.5 – 20 µL L light gray	0.1 – 20 µL pearl white	0.5 – 100 µL light yellow	2 – 20 µL yellow	2 – 100 µL yellow	2 – 200 µL yellow
epT.I.P.S.®	■		■	■	■	■	■	■	■
epT.I.P.S.® LoRetention	■			■					■
ep Dualfilter T.I.P.S.®	■	■		■	■	■	■	■	■
ep Dualfilter T.I.P.S.® LoRetention	■			■				■	
ep Dualfilter T.I.P.S.® SealMax	■			■				■	■
Variable volume, single-, 8- and 12-channel pipettes									
0.5 – 10 µL	■	■	■	■					
1 – 20 µL	◆	◆	■	■					
5 – 100 µL							◆	■	■
10 – 200 µL							◆	◆	■
15 – 300 µL							◆	◆	◆
50 – 1,000 µL									
50 – 1,200 µL									
0.125 – 2.5 mL									
0.2 – 5 mL									
0.5 – 10 mL									
Variable volume, 16- and 24-channel pipettes									
1 – 20 µL					■				
1 – 20 µL						■			

■ normal volume ◆ limited volume

20 – 300 µL orange	50 – 1,000 µL blue	50 – 1,250 µL green	50 – 1,250 µL L dark green	0.25 – 2.5 mL red	0.1 – 5 mL violet	0.2 – 5 mL L violet	0.5 – 10 mL turquoise	0.5 – 10 mL L turquoise	GELoader/ Microloader 0.5 – 20 µL
■	■	■	■	■	■	■	■	■	■
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		■	■						
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Multipette® M4

Aspirate once and dispense up to 100 times
Serial pipetting made easy! The mechanical Multipette M4 is the ideal precision instrument for completing long pipetting or dispensing series. Even liquids which are difficult to pipette are no match for the Multipette/Combitips® system. Volumes are dispensed using the positive displacement principle. The liquid is directly dispensed without an air cushion, ensuring the correct volume is always dispensed regardless of the density, viscosity and volatility of the liquid.

PhysioCare concept

SCIENTISTS' CHOICE® AWARDS 17 WINNER

Product features
> Fill the tip once and dispense up to 100 times without a refill
> Automatic Combitips recognition eliminates time consuming volume calculations
> Easy-to-read display guarantees stress-free and intuitive operation
> Dispensing volume is clearly displayed
> Integrated »Sleep« function switches off when the Multipette M4 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 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

Applications
> Repetitive dispensing of volumes in long series such as tube or plate filling, aliquoting reagents and kit usage
> Contamination-free 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)

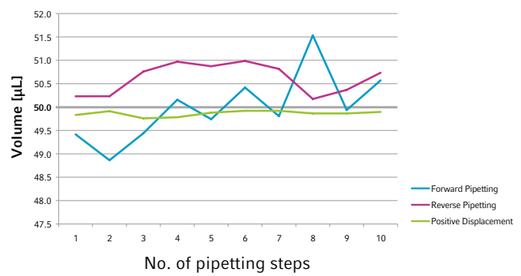
Correct Handling of Difficult Liquids

Viscous liquids

Problem
Viscous liquids have a high resistance to flow (e.g. glycerol)

Recommendation
Usage of a positive displacement pipette for better flow behavior due to absence of air cushion

Air-cushion pipette: Viscous liquids have a negative effect on accuracy and precision (Pipetting 50 µL of 85 % glycerol)



i For more information go to www.eppendorf.com

Volume table for using the Combitips advanced with the Multipette M4

Position of the volume selection dial:	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
Maximum number of dispensing steps:	100	50	33	25	20	16	14	12	11	10
Combitips advanced with the following dispensing volumes:										
0.1 mL	1 µL	2 µL	3 µL	4 µL	5 µL	6 µL	7 µL	8 µL	9 µL	10 µL
0.2 mL	2 µL	4 µL	6 µL	8 µL	10 µL	12 µL	14 µL	16 µL	18 µL	20 µL
0.5 mL	5 µL	10 µL	15 µL	20 µL	25 µL	30 µL	35 µL	40 µL	45 µL	50 µL
1.0 mL	10 µL	20 µL	30 µL	40 µL	50 µL	60 µL	70 µL	80 µL	90 µL	100 µL
2.5 mL	25 µL	50 µL	75 µL	100 µL	125 µL	150 µL	175 µL	200 µL	225 µL	250 µL
5.0 mL	50 µL	100 µL	150 µL	200 µL	250 µL	300 µL	350 µL	400 µL	450 µL	500 µL
10 mL	100 µL	200 µL	300 µL	400 µL	500 µL	600 µL	700 µL	800 µL	900 µL	1.0 mL
25 mL[1)]	250 µL	500 µL	750 µL	1.0 mL	1.25 mL	1.5 mL	1.75 mL	2.0 mL	2.25 mL	2.5 mL
50 mL[1)]	500 µL	1.0 mL	1.5 mL	2.0 mL	2.5 mL	3.0 mL	3.5 mL	4.0 mL	4.5 mL	5.0 mL

[1)] 25 and 50 mL Combitips can only be used with the corresponding adapter. Further information about Combitips advanced see page 73.

Volume table for using the Combitips advanced with the Multipette M4

Position of the volume selection dial:	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Maximum number of dispensing steps:	9	8	7	7	6	6	5	5	5	5
Combitips advanced with the following dispensing volumes:										
0.1 mL	11 µL	12 µL	13 µL	14 µL	15 µL	16 µL	17 µL	18 µL	19 µL	20 µL
0.2 mL	22 µL	24 µL	26 µL	28 µL	30 µL	32 µL	34 µL	36 µL	38 µL	40 µL
0.5 mL	55 µL	60 µL	65 µL	70 µL	75 µL	80 µL	85 µL	90 µL	95 µL	100 µL
1.0 mL	110 µL	120 µL	130 µL	140 µL	150 µL	160 µL	170 µL	180 µL	190 µL	200 µL
2.5 mL	275 µL	300 µL	325 µL	350 µL	375 µL	400 µL	425 µL	450 µL	475 µL	500 µL
5.0 mL	550 µL	600 µL	650 µL	700 µL	750 µL	800 µL	850 µL	900 µL	950 µL	1.0 mL
10 mL	1.1 mL	1.2 mL	1.3 mL	1.4 mL	1.5 mL	1.6 mL	1.7 mL	1.8 mL	1.9 mL	2.0 mL
25 mL[1)]	2.75 mL	3.0 mL	3.25 mL	3.5 mL	3.75 mL	4.0 mL	4.25 mL	4.50 mL	4.75 mL	5.0 mL
50 mL[1)]	5.5 mL	6.0 mL	6.5 mL	7.0 mL	7.5 mL	8.0 mL	8.5 mL	9.0 mL	9.5 mL	10 mL

[1)] 25 and 50 mL Combitips can only be used with the corresponding adapter. Further information about Combitips advanced see page 73.

Ordering information

Description	Order no.
Multipette® M4, single-channel, 1 µL – 10 mL	4982 000.012
Multipette® M4 Starter Kit, single-channel, Multipette® M4, Combitips® Rack, Combitips® assortment pack, 1 µL – 10 mL	4982 000.314
Battery, 3 V, for Multipette® M4 and Multipette® plus	4980 215.003

Your local distributor: www.eppendorf.com/contact
Eppendorf AG · Barkhausenweg 1 · 22339 Hamburg · Germany · eppendorf@eppendorf.com · www.eppendorf.com

Multipette® E3/E3x

The expert for long series pipetting and liquids with demanding properties
Dispensing without compromise on accuracy and precision! With the electronic Multipette E3/E3x you save time and money, work stress-free, and get reliable results. It is the ideal and smart solution for filling plates or large series of tubes. The light weight and minimal operation forces of the Multipette E3 reduce the risk of repetitive strain injuries. The Multipette/Combitips® system builds the perfect harmony allowing automatic tip recognition for ease of use. The syringe style Combitips Tip maximizes pipetting accuracy and precision. It is not affected by liquid properties, most manual pipetting errors and provides protection from aerosol contamination.

Product features
> Automatic Combitips recognition: Eliminates time-consuming volume calculations, avoiding incorrect dispensing volumes
> Ergonomic one-button tip ejector: For one-handed operation and contact-free Combitips advanced ejection
> Speed adjustment: Program aspiration and dispensing speed for the utmost in precision and accuracy while also preventing splashing
> 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
> Motor-driven function reduces the human error to a minimum and reduces risk of repetitive strain injuries (RSI)
> Safe and ergonomic operation with 9 different selectable languages
> Positive displacement system: Not affected by liquid properties, most manual pipetting errors and provides protection from aerosol contamination
> Eppendorf TrackIT compatible: Editable data chip contains all relevant information. www.eppendorf.com/trackit

Applications
> Repetitive dispensing of volumes in long series such as tube or plate filling, aliquoting reagents and kit usage
> Contamination-free dispensing for toxic, radioactive and other hazardous liquids
> Precise and accurate dispensing of viscous solutions or liquids with high vapor pressure
> Pooling of supernatants
> Creation of dilution series
> Concentration determination
> Pooling and volume determination with subsequent dispensing

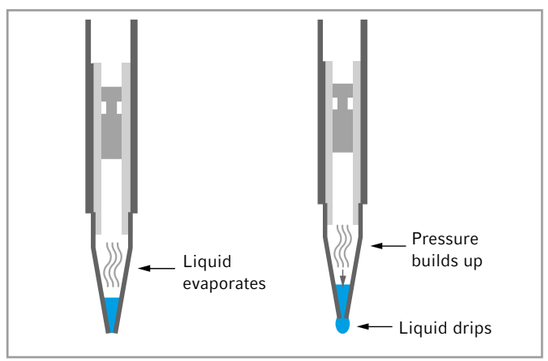
PhysioCare concept

Correct Handling of Difficult Liquids

Liquids with high vapor pressure

Problem
Liquids with high vapor pressure force air cushion to expand (e.g. acetone)

Recommendation
Usage of a positive displacement pipette eliminates the problem due to absence of air cushion



Technical specifications subject to change.

Work precisely and safely
The optimized system of Multipette and Combitips advanced allows automatic tip recognition for ease of use. The syringe style Combitips Tip maximizes pipetting accuracy and precision. It is not affected by liquid properties, most manual pipetting errors and provides protection from aerosol contamination.

Multipette E3 and Multipette E3x at a glance	Multipette E3	Multipette E3x
High-speed dispensing with motorized piston	■	■
Automatic Combitips advanced® tip recognition	■	■
One-button tip ejection	■	■
Volume range from 1 µL to 50 mL, over 5,000 possible dispensing volumes	■	■
Big illuminated color display in 9 languages	■	■
Sleep mode saves battery when not in use	■	■
Long life Li-ion battery	■	■
Speed adjustment to match the viscosity of your liquid and the size of your vessel to prevent air bubbles and splashing	■	■
Options (Opt): Save favorite settings, set service intervals, activate key lock and more	■	■
Modes of operation	3	7
Pipetting (Pip): Precise liquid transfer of up to 50 mL	■	■
Dispensing (Dis): Serial dispensing for up to 100 steps in a row	■	■
Automatic dispensing (Ads): Volume is dispensed at fixed intervals between 0.1 s and 10 s	■	■
Sequential dispensing (Seq): Individual volume setting for up to 16 dispensing steps		■
Aspirate (Asp): consecutive aspiration of liquid for pooling into one Combitip		■
Aspirate and Dispense (A/D): Uptake and volume calculation of an unknown volume with immediate dispense in desired partial volumes		■
Titration (Tit): Sensitive dosing of liquids while dispensed volume is measured		■

Ordering information

Description	Order no.
Multipette® E3, single-channel, with charging cable and Combitips advanced® assortment pack (1 Combitips® of each size), 1 µL – 50 mL	4987 000.010
Multipette® E3 bundle incl. charger stand, single-channel, with charging cable and Combitips advanced® assortment pack (1 Combitips® of each size), 1 µL – 50 mL	4987 000.371
Multipette® E3x, single-channel, with charging cable and Combitips advanced® assortment pack (1 Combitip of each size), 1 µL – 50 mL	4987 000.029
Multipette® E3x bundle incl. charger stand, single-channel, with charging cable and Combitips advanced® assortment pack (1 Combitip of each size), 1 µL – 50 mL	4987 000.380
Power supply with power plug adapters, for Eppendorf Xplorer®/Xplorer plus, electronic Multipette®, and charger stand (4880)	4986 603.005

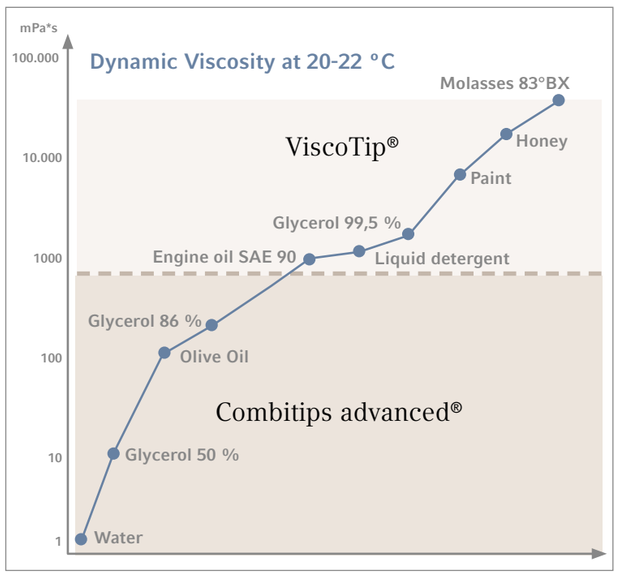
➤ Further information about Combitips advanced see on page 73

ViscoTip®

For mastering highly viscous liquids with your Multipette® from Eppendorf
Experience the new member of the Combitips advanced® dispenser tip family. The ViscoTip is specifically designed and optimized for handling high viscosity liquids up to 14,000 mPa*s such as glycerol 99.5 %, Tween, oils, creams, shampoos or honey. It sharply reduces operating forces while handling such liquids leading to enhanced ergonomics, increased working speed and longer charge lifetime of your Multipette battery.

Product features
> Specialized for liquids with a dynamic viscosity from 200 mPa*s to 14,000 mPa*s
> For dispensing volumes from 100 µL to 10 mL in increments of 10 µL
> Make life easier for your instrument: The new design of the tip means significantly lower operation forces are used, thus it speeds up work and reduces energy consumption
> Don't waste time calculating: Automatic tip recognition and volume calculation in Multipette M4/E3/E3x
> Free of leachables and slip agents: The ViscoTip is free of experiment-interfering leachables (e.g. slip agents, biocides, plasticisers)
> Save time finding the right tip: The color coded double ring and the continuous volume scale distinguish the ViscoTip from Combitips advanced

Applications
> Positive displacement principle (comparable to a syringe)
> For highly viscous liquids
> Quick dispensing of long series with precise, repeated dispensing of identical volumes (with Multipette hand dispensers)



Technical specifications subject to change.

Eppendorf Combitips advanced®

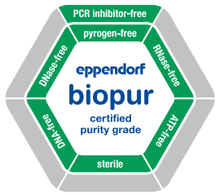
The ideal system components for all Multipette pipettes from Eppendorf
In 1978 Eppendorf revolutionized the industry and laboratory workflow with the introduction of the Combitip/Multipette system and has been the leader in market innovations for nearly 40 years. The Combitips advanced have been completely redesigned and optimized to meet the needs of modern laboratory. The Combitips advanced also function according to the positive displacement principle, thus they always dispense the correct volume independently of the density of the liquid and its flow characteristics (e.g., increased vapor pressure or increased viscosity). Working with radioactive or toxic materials also becomes safer due to the hermetically sealed piston preventing aerosol contamination.

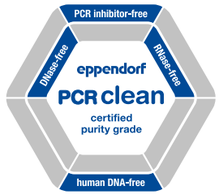
Product features
> Combitips advanced are the ideal system components for all Multipette pipettes of Eppendorf
> The 9 volume sizes (0.1 mL – 50 mL) offer a maximum range of dispensing volumes with increments as low as 100 nanoliters depending on the Combitips used
> Elongated Combitips in volumes 2.5 mL, 5.0 mL and 10 mL make it possible to reach the bottom of the most common laboratory vessels
> An individual color coding facilitates the quick identification of the desired Combitips
> The unique funnel geometry ensures comfortable handling while preventing damage to gloves
> Combitips advanced are offered in different purity grades to support a range of applications
> The appropriate purity grade for each application: Eppendorf Quality™, PCR Clean, Forensic DNA Grade or Biopur®

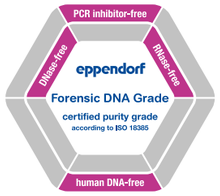
Applications
> Positive displacement principle (comparable to a syringe)
> High-precision dispensing regardless of the physical properties of the liquid (e.g., viscosity, volatility, density, temperature...)
> Prevents aerosol contamination with hermetically sealed piston for secure dispensing
> Provides protection from radioactive and toxic substances
> Quick dispensing of long series with precise, repeated dispensing of identical volumes (with Multipette hand dispensers)

Always easy to reach
The new Combitips Rack features trouble-free and single-hand operation during dispensing work. The rack holds up to 8 Combitips advanced in sizes ranging from 0.1 mL to 10 mL. The transparent tray allows for the sizes of the Combitips to be easily identified using the color coding.

Eppendorf Combitips advanced®







Unmistakably Eppendorf
The Eppendorf Combitips advanced features the characteristic Eppendorf 3D design on the upper rim of the Combitips, allowing you to easily and confidently recognize the Eppendorf original!

Variety and selection
4 purity grades (Eppendorf Quality, PCR clean, Biopur® and Eppendorf Forensic DNA Grade) are available, so that you will always find the perfect Combitips Tip for your application! The Eppendorf Biopur and Forensic DNA Grade Combitips advanced are individually blister-wrapped and feature an access tab which makes them easier to open, even with gloves!

Technical Specifications

Combitips advanced®	Eppendorf Safe-Lock Tubes			Conical Tubes		Eppendorf Deepwell Plates		
	0.5 mL	1.5 mL	2.0 mL	15 mL	50 mL	96/500 µL	96/1000 µL	96/2000 µL
0.1 mL	+	+	+	-	-	+	+	+
0.2 mL	+	+	+	-	-	+	+	+
0.5 mL	+	+	+	-	-	+	+	+
1.0 mL	+	+	+	-	-	+	+	+
2.5 mL	++	++	++	++	++	+	++	++
5.0 mL	+	+	+	++	++	+	+	+
10 mL	+	+	+	-	++	+	+	+
25 mL	-	+	+	-	-	+	+	+
50 mL	-	+	+	-	-	+	+	+
ViscoTip®								
10 mL	+	+	+	-	++	+	+	+

++ = improved compatibility compared to Combitip plus generation

Technical specifications subject to change.

Ordering information

Combitips advanced®	Color code	Eppendorf Quality™	PCR clean	Biopur®	Forensic DNA Grade
		100 pcs. (4 bags × 25 pcs.)	100 pcs. (4 reclosable bags × 25 pcs.)	100 pcs., individually blister-wrapped	100 pcs., individually blister-wrapped
0.1 mL	white	0030 089.405	0030 089.766	0030 089.618	
0.2 mL	light blue	0030 089.413	0030 089.774	0030 089.626	
0.5 mL	violet	0030 089.421	0030 089.782	0030 089.634	
1.0 mL	yellow	0030 089.430	0030 089.790	0030 089.642	0030 089.855
2.5 mL	green	0030 089.448	0030 089.804	0030 089.650	0030 089.863
5.0 mL	blue	0030 089.456	0030 089.812	0030 089.669	0030 089.871
10 mL	orange	0030 089.464	0030 089.820	0030 089.677	
25 mL [1]	red	0030 089.472	0030 089.839	0030 089.685	
50 mL [1]	light gray	0030 089.480	0030 089.847	0030 089.693	
ViscoTip®					
10 mL		0030 089.502			
Accessories					
Adapter advanced					
25 mL, autoclavable, 1 piece	red	0030 089.715			
25 mL, autoclavable, 7 pcs., individually wrapped	red			0030 089.731	
50 mL, autoclavable, 1 piece	light gray	0030 089.723			
50 mL, autoclavable, 7 pcs., individually wrapped	light gray			0030 089.740	
Combitips advanced® Rack, for 8 Combitips advanced® (0.1 – 10 mL)		0030 089.758			
Combitips advanced® Assortment Pack, contains one sample of each size		0030 089.936			

[1] 4 boxes of 25 pcs. each. Each box containing one adapter.

Varipette® 4720

The large volume pipette for large bottles or tall, narrow vessels
The Varipette® 4720 is a large volume pipette optimized for work with viscous or high-vapor pressure solutions. It also allows for aspirating liquids from large bottles or tall, narrow vessels when using the Varitip S system. Its super easy, one-hand operation significantly speeds up pipetting tasks: Simply press down the operating lever to aspirate liquid from the reservoir. Press the lever again and the liquid will be dispensed into your sample vessel.

Product features
> Volume range: 1 mL to 10 mL
> Fast pipetting and convenient operation due to unique one-hand operation. Liquid automatically aspirates and dispenses by simply pressing the operating lever
> 4-digit volume display and adjustable in 10 µL increments for accurate volume setting
> Eppendorf Varitips® P (fig.1) is a syringe-style, positive displacement tip that allows for accurate pipetting of viscous solutions or liquids with high-vapor pressure
> The Eppendorf Varitips S system, consisting of the dispensing part (fig.2) and Maxitip (fig.3), is optimized for aspirating liquids from large bottles or tall, narrow vessels
> The valve for use together with the Varitips S system ensures drip-free dispensing of volatile solutions

Combination	Volume range	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]
Varipette 4720 and Varitips S system	2.5 – 10 mL	2.5 mL	±1.0 %	0.025 mL	±0.2 %	0.005 mL
		5 mL	±0.4 %	0.02 mL	±0.2 %	0.01 mL
		10 mL	±0.3 %	0.03 mL	±0.2 %	0.02 mL
Varipette 4720 and Varitips P	1 – 10 mL	1 mL	±0.6 %	0.006 mL	±0.2 %	0.002 mL
		5 mL	±0.5 %	0.025 mL	±0.1 %	0.005 mL
		10 mL	±0.3 %	0.03 mL	±0.1 %	0.01 mL

[1)] The error data, according to EN ISO 8655, only apply if original Eppendorf tips are used. Technical specifications are subject to change. Errors and omissions excepted.

Ordering information

Description	Order no.
Varipette® 4720, single-channel, with continuous volume selection in the 1 – 10 mL range, 1 – 10 mL	4720 000.011
Eppendorf Varitips® P, to remove liquid from smaller vessels, 100 pieces	0030 048.130
Eppendorf Varitips® S Starter Kit, to remove liquid from narrow-necked vessels and measuring flasks, consisting of 100 Maxitips, 10 dispensing parts, 10 valves	0030 050.525
Eppendorf Varitips® S dispensing part, 30 pieces	0030 050.533
Eppendorf Varitips® S, graduated, 200 pieces	0030 050.568
Eppendorf Varitips® S valve, 100 pieces	0030 050.541

Eppendorf TrackIT

Description
To increase the traceability of your pipette portfolio Eppendorf offers Eppendorf TrackIT. This product contains a RFID reader and software to scan the device data of an embedded RFID chip within liquid handling instruments and save it in a database which can be opened at any time.

Applications
> Instrument identification
> Traceability of instruments used in an experiment
> Individualization of the instrument
> Printed documentation of all relevant instrument data
> Make all relevant instrument information available for digital documentation
> Documentation of service history

Ordering information

Description	Order no.
Eppendorf TrackIT, RFID Reader and Software	3903 000.014

Easypet® 3

Designed to work in perfect harmony with your Eppendorf Serological Pipets
Experience a new dimension of electronic pipetting with the Easypet® 3. The latest technological developments give you complete speed control with the utmost precision. The lightweight, well-balanced Easypet 3 has been designed considering all ergonomic findings to fit comfortably in your hand and matches its shape to allow for fatigue-free pipetting.

Product features
> Intuitive and convenient speed adjustment simply done with the tips of your fingers
> Lightweight, well-balanced and ergonomic design that allows for fatigue-free pipetting
> Vibrant backlit LEDs provide optical feedback of the remaining battery life
> Lithium polymer rechargeable battery offers long cordless runtime
> Smooth setting of pump speed
> Operation while recharging is possible
> Autoclavable pipette adapter for sterile applications
> Quick release of aspirating cone for easy exchange of membrane filters

Applications
> Pipette controller for use with pipettes from 0.1 – 100 mL
> Serial dispensing of aliquots of different volumes
> Resuspension of bacteria or cell pellets
> Aspiration of cell layer from, e.g., Ficoll® gradient

Technical specifications	
Model	**Easypet® 3**
Weight	160 g
Rechargeable battery	
Capacity	1,100 mAh/3.7 V
Charging time	~3 h
Type	Lithium polymer
Number of dispensings	~2,000 (with a 25 mL pipette)
Operation	Electronic
Pipetting type	Air-cushion
Mains/power supply	
Input	100 V – 240 V AC ± 10 %, 50 Hz – 60 Hz, 0.5 A
Output	5 V DC, 1.0 A

Ordering information

Description	Order no.
Easypet® 3, incl. mains/power supply device, wall mounting device, shelf stand, 2 membrane filters 0.45 µm, 0.1 – 100 mL	4430 000.018
Membrane filter, for Easypet® 4421 and Easypet® 3, 0.2 µm, sterile, PTFE, 5 pcs.	4430 606.005
Membrane filter, for Easypet® 4421 and Easypet® 3, 0.45 µm, sterile, PTFE, 5 pcs.	4421 601.009
Li-polymer battery, for Easypet® 3	4430 605.009

Eppendorf Serological Pipets

Designed to work in perfect harmony with your Easypet® 3
Eppendorf completes its portfolio in liquid handling with the new line of Eppendorf Serological Pipets. Experience the quality and convenience in liquid handling you have trusted in for decades with Eppendorf's system: Easypet 3 and Eppendorf Serological Pipets. Eppendorf's serological pipets are designed to work in perfect harmony with your Easypet 3. The pipets offer precise graduations overlaid on the ultra-clear pipet material to facilitate quick and easy reading of the volume. The pipets are individually wrapped and packaged in a robust dispenser box to ensure consistent premium quality.

Product features
> Clear and precise graduations for easy volume determination
> Color-coding for easy identification of pipet sizes
> Subunits with dispenser option to keep stored products safe
> Individually wrapped pipets for reliable sterility
> Ultra-pure virgin polystyrene meeting the requirement of USP VI
> Harmonized and well-fitting operation with Easypet 3, compatibility with all existing pipet helpers
> Sterility assurance level of 10^{-6}
> Certified absence of detectable pyrogens, DNA, RNase and DNase
> Certified non-cytotoxic

Ordering information

Description	Color code	Volume	Order no.
Eppendorf Serological Pipets, sterile, free of detectable pyrogens, DNA, RNase and DNase. Non-cytotoxic			
Sterile, 800 pcs. (4 bags × 200 pcs.)	yellow	1 mL	0030 127.692
Sterile, 600 pcs. (4 bags × 150 pcs.)	green	2 mL	0030 127.706
Sterile, 400 pcs. (4 bags × 100 pcs.)	blue	5 mL	0030 127.714
Sterile, 400 pcs. (4 bags × 100 pcs.)	orange	10 mL	0030 127.722
Sterile, 200 pcs. (4 bags × 50 pcs.)	red	25 mL	0030 127.730
Sterile, 160 pcs. (4 bags × 40 pcs.)	violet	50 mL	0030 127.749

Pipet Helper®

The perfect instrument for inexperienced users
The Pipet Helper is the perfect instrument for inexperienced users as its robust and intuitive design allows everybody to adjust the meniscus precisely. In addition, the valve unit is optimized so that liquids can be drawn up simply, without exerting pressure. The aspiration bulb provides rapid filling of the pipet. The aspiration and dispensing of liquids are controlled gently by the ergonomic lever. Additionally, a splash free blow-out is provided. The specially designed aspirating cone ensures secure seating for all measuring and volumetric pipets (glass and plastic).

Product features
> Lightweight with reduced operating force
> Easy maintenance and cleaning due to easy disassembly, few parts and fully autoclavable
> Comfortable working because of the good balance and pleasing material
> The aspirating bulb enables pipetting of volumes up to 100 mL at once
> Single lever controls low force aspirating and dispensing
> High control over the liquid movement due to very sensitive valve unit
> Drop wise dispensing and blow out without splashing
> Drainage without any additional pressure delivers very reproducible results
> Drip stop via hydrophobic membrane filter (3 µm)
> The special silicon pipet adapter guarantees a secure pipette fit

Applications
> Preparation of a buffer for chromatography
> Preparation of a fluid for fermentation
> Sample transfer within petrochemistry
> Generate a sample within water analytics
> Preparation of assays

Ordering information

Description	Order no.
Pipet Helper®, 0.1 – 100 mL	4423 000.010
Membrane filter, for Pipet Helper®, 3 µm, not sterile	4423 601.014

Your local distributor: www.eppendorf.com/contact
Eppendorf AG · Barkhausenweg 1 · 22339 Hamburg · Germany · eppendorf@eppendorf.com · www.eppendorf.com

Varispenser® 2/Varispenser® 2x

Safe and easy dispensing of liquids from bottles without compromise
The new Varispenser 2 and Varispenser 2x are the ideal choice for dispensing aliquots of liquid from supply and reagent bottles. Advanced sealing lip technology enables dispensing of nearly all kinds of acids, solutions or bases. Available in 6 sizes for dispensing volumes from 0.2 – 100 mL, these instruments are designed to consistently dispense selected volumes without reagent waste. All Varispenser bottletop dispensers are fully autoclavable for maximum safety in your lab. The Varispenser 2x has a recirculation valve which prevents reagent loss while ventilating.

Product features
> Standard GL 45 thread for most common bottle threads on all sizes
> Safety valve balls in discharge valve prevent leakage when discharge tube is not mounted
> Air vent cap can be unscrewed for easy assembly of drying tube
> Oval-shaped dispenser housing for easy transportation
> PFA seal of the sliding piston prevents seizing up
> Fixation slide on interior toothed track for rapid and safe volume adjustment
> High chemical resistance of all dispensing components
> Telescopic aspirating tubes for variable adjustment to bottle height
> Fully autoclavable without disassembly
> Both models are available in 6 sizes for dispensing volumes from 0.2 – 100 mL

Applications
> Liquid dispensing directly from supply bottles or other big laboratory vessels containing aqueous liquids, lyes, acids, bases or solvents

Ordering information

Volume range	Volume	Dispensing step	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Varispenser® 2, bottle top dispenser with adapters GL 25, GL 28/S 28, GL 32, GL 38, S 40 and telescopic intake tube (length 125 – 240 mm)							
0.2 – 2 mL	0.2 mL	0.05 mL	±5 %	±10 µL	±1 %	±2 µL	4966 000.010
	1 mL	0.05 mL	±1 %	±10 µL	±0.2 %	±2 µL	
	2 mL	0.05 mL	±0.5 %	±10 µL	±0.1 %	±2 µL	
0.5 – 5 mL	0.5 mL	0.1 mL	±5 %	±25 µL	±1 %	±5 µL	4966 000.029
	2.5 mL	0.1 mL	±1 %	±25 µL	±0.2 %	±5 µL	
	5 mL	0.1 mL	±0.5 %	±25 µL	±0.1 %	±5 µL	
1 – 10 mL	1 mL	0.2 mL	±5 %	±50 µL	±1 %	±10 µL	4966 000.037
	5 mL	0.2 mL	±1 %	±50 µL	±0.2 %	±10 µL	
	10 mL	0.2 mL	±0.5 %	±50 µL	±0.1 %	±10 µL	
Varispenser® 2, bottle top dispenser with adapters GL 32, GL 38, S 40 and telescopic intake tube (length 170 – 330 mm)							
2.5 – 25 mL	2.5 mL	0.5 mL	±5 %	±120 µL	±1 %	±25 µL	4966 000.045
	12.5 mL	0.5 mL	±1 %	±120 µL	±0.2 %	±25 µL	
	25 mL	0.5 mL	±0.5 %	±120 µL	±0.1 %	±25 µL	
5 – 50 mL	5 mL	1 mL	±5 %	±250 µL	±1 %	±50 µL	4966 000.053
	25 mL	1 mL	±1 %	±250 µL	±0.2 %	±50 µL	
	50 mL	1 mL	±0.5 %	±250 µL	±0.1 %	±50 µL	
10 – 100 mL	10 mL	1 mL	±5 %	±500 µL	±1 %	±100 µL	4966 000.061
	50 mL	1 mL	±1 %	±500 µL	±0.2 %	±100 µL	
	100 mL	1 mL	±0.5 %	±500 µL	±0.1 %	±100 µL	
Varispenser® 2x, bottle top dispenser with recirculation valve with adapters GL 25, GL 28/S 28, GL 32, GL 38, S 40 and telescopic intake tube (length 125 – 240 mm)							
0.2 – 2 mL	0.2 mL	0.5 mL	±5 %	±10 µL	±1 %	±2 µL	4967 000.014
	1 mL	0.5 mL	±1 %	±10 µL	±0.2 %	±2 µL	
	2 mL	0.5 mL	±0.5 %	±10 µL	±0.1 %	±2 µL	
0.5 – 5 mL	0.5 mL	0.1 mL	±5 %	±25 µL	±1 %	±5 µL	4967 000.022
	2.5 mL	0.1 mL	±1 %	±25 µL	±0.2 %	±5 µL	
	5 mL	0.1 mL	±0.5 %	±25 µL	±0.1 %	±5 µL	
0.1 – 10 mL	1 mL	0.2 mL	±5 %	±50 µL	±1 %	±10 µL	4967 000.030
	5 mL	0.2 mL	±1 %	±50 µL	±0.2 %	±10 µL	
	10 mL	0.2 mL	±0.5 %	±50 µL	±0.1 %	±10 µL	
Varispenser® 2x, bottle top dispenser with recirculation valve with adapters GL 32, GL 38, S 40 and telescopic intake tube (length 170 – 330 mm)							
2.5 – 25 mL	2.5 mL	0.5 mL	±5 %	±120 µL	±1 %	±25 µL	4967 000.049
	12.5 mL	0.5 mL	±1 %	±120 µL	±0.2 %	±25 µL	
	25 mL	0.5 mL	±0.5 %	±120 µL	±0.1 %	±25 µL	
5 – 50 mL	5 mL	1 mL	±5 %	±250 µL	±1 %	±50 µL	4967 000.057
	25 mL	1 mL	±1 %	±250 µL	±0.2 %	±50 µL	
	50 mL	1 mL	±0.5 %	±250 µL	±0.1 %	±50 µL	
10 – 100 mL	10 mL	1 mL	±5 %	±500 µL	±1 %	±100 µL	4967 000.065
	50 mL	1 mL	±1 %	±500 µL	±0.2 %	±100 µL	
	100 mL	1 mL	±0.5 %	±500 µL	±0.1 %	±100 µL	

[1)] The data for systematic error and random error are given according to EN ISO 8655. Technical specifications are subject to change. Errors and omissions excepted. The Varispenser® (plus) is not a substitution for a bottle closure. Volatile liquids can disappear.

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Eppendorf Top Buret™

Continuous and pulse-free manual titration
The Eppendorf Top Buret sets standards for manual titration. With each turn of the dial, liquid is continously dispensed. This eliminates the need for new liquid aspiration and makes titration simpler and safer. The Top Buret comes in two different models: Model M features a dispensing rate of 2,500 µL per rotation; Model H features a rate of 5,000 µL per rotation. The digital display readings on both models range from 10 µL to 999.9 mL with the size of your supply bottle being the only limiting factor. Its clearly labeled user-friendly digital display and simple knob control provides for easy, ergonomic and fatigue-free operation.

Product features
> Continuous, pulse-free dispensing technology
> Recirculation valve with valve lever
> Voltage supply with longerlife battery and battery status indicator
> Dispensing range 0.1 mL to 999.9 mL
> Electronic control pad can be removed as unit
> Service-friendly modular design incl. simple calibration program
> High chemical resistance
> Variable discharge tube, horizontal 142 – 220 mm, vertical 10 – 200 mm and rotatable by 360°
> Telescopic aspirating tube for automatic length adjustment of 210 – 370 mm
> Suitable for GL 32, GL 38, GL 45 and S 40 buttress thread with included adapters. Additional adapters available

Ordering information

Volume range	Volume	Rel. systematic error[1)]	Abs. systematic error[1)]	Rel. random error[1)]	Abs. random error[1)]	Order no.
Eppendorf Top Buret™ M						
0.1 – 999.9 mL	2.5 mL	±2.0 %	±0.05 mL	±1.0 %	±0.025 mL	4965 000.017
	12.5 mL	±0.4 %	±0.05 mL	±0.2 %	±0.025 mL	
	25 mL	±0.2 %	±0.05 mL	±0.1 %	±0.025 mL	
Eppendorf Top Buret™ H						
0.1 – 999.9 mL	5 mL	±2.0 %	±0.1 mL	±1.0 %	±0.05 mL	4965 000.025
	25 mL	±0.4 %	±0.1 mL	±0.2 %	±0.05 mL	
	50 mL	±0.2 %	±0.1 mL	±0.1 %	±0.05 mL	

[1)] The data for systematic error and random error are given according to EN ISO 8655. Technical specifications are subject to change. Errors and omissions excepted. The Varispenser (plus) is not a substitution for a bottle closure. Volatile liquids can disappear.

Accessories

Description	Order no.
Telescoping aspirating tube from FEP, individually adjustable length 125 mm – 240 mm, for Varispenser® 2(x) with nominal volume of 2 mL, 5 mL or 10 mL, outer diameter 6 mm, standard size	4966 504.000
Telescoping aspirating tube from FEP, individually adjustable length 170 mm – 330 mm, for Varispenser® 2(x) with nominal volume of 25 mL, 50 mL or 100 mL, outer diameter 7.6 mm, standard size	4966 507.000
Telescoping aspirating tube from FEP, individually adjustable length 195 mm – 350 mm, for Varispenser® 2(x) with nominal volume of 2 mL, 5 mL or 10 mL, outer diameter 6 mm, special size for large cylinders	4966 505.007
Telescoping aspirating tube from FEP, individually adjustable length 250 mm – 480 mm, for Varispenser® 2(x) with nominal volume of 2 mL, 5 mL or 10 mL, outer diameter 6 mm, special size for very large cylinders and canisters	4966 506.003
Telescoping aspirating tube from FEP, individually adjustable length 250 mm – 480 mm, for Varispenser® 2(x) with nominal volume of 25 mL, 50 mL or 100 mL, outer diameter 7.6 mm, special size for very large cylinders and canisters	4966 508.006
Telescoping aspirating tube from FEP, individually adjustable length 70 mm – 140 mm, for Varispenser® 2(x) with nominal volume of 2 mL, 5 mL or 10 mL, outer diameter 6 mm, special size for small cylinders	4966 503.004
Telescopic aspirating tube, for Eppendorf Top Buret™, Varispenser® and Varispenser® plus	4960 805.009
Bottle thread adapter from GL 32 to GL 25, PP	4960 800.040
Bottle thread adapter from GL 32 to GL 27, PP	4960 800.139
Bottle thread adapter from GL 32 to GL 28, PP	4960 800.058
Bottle thread adapter from GL 32 to NS 19/26, PP	4960 800.082
Bottle thread adapter from GL 32 to NS 24/29, PP	4960 800.090
Bottle thread adapter from GL 32 to NS 29/32, PP	4960 800.104
Bottle thread adapter from GL 45 to GL 32, PP	4960 800.120
Bottle thread adapter from GL 45 to GL 38, PP	4960 800.155
Bottle thread adapter from GL 45 to S 40 (Buttress thread), PP	4960 800.147
Bottle thread adapter, from GL 32 to GL 28, ETFE	4960 835.005
Bottle thread adapter, from GL 45 to GL 38, ETFE	4960 839.000
Bottle thread adapter, from GL 45 to GL 40, ETFE	4960 834.009
Bottle thread adapter from GL 32 to GL 25, ETFE	4966 614.000
Bottle thread adapter from GL 45 to GL 32, ETFE	4966 615.007
Flexible discharge tube with recirculation valve, coiled from PTFE, approx. 80 cm long, with safety hand grip, for Varispenser® 2(x) with nominal volume of 2 mL, 5 mL or 10 mL, outer tube diameter 3 mm, inner tube diameter 2 mm	4966 501.001
Flexible discharge tube with recirculation valve, coiled from PTFE, approx. 80 cm long, with safety hand grip, for Varispenser® 2(x) with nominal volume of 25 mL, 50 mL or 100 mL, outer tube diameter 4.5 mm, inner tube diameter 3 mm	4966 502.008
Drying tube (not filled), including PTFE sealing ring, for Varispenser® 2(x), all sizes	4966 509.002
Drying tube, without drying agent, for Eppendorf Top Buret™, Varispenser® and Varispenser® plus	4960 851.000
Ventilation screw with Luer cone made of PP for microfilter, including PTFE sealing ring, for Varispenser® 2(x), all sizes	4966 511.007
Thread adapter for jerrycan 5L from 45 mm to 17/8'' thread	4960 832.006

ep*Motion*® 96

Product features
> 0.5 to 300 µL or 5 to 1,000 µL with one system
> Electronic pipetting with synchronous 96 channel piston movement for better precision and reproducibility of results
> Auto-detect function for tip size
> Use two sizes of reload tips for best accuracy
> Intuitive and industry proven software concept and convenient touch screen control
> Intelligent, preset applications: aspiration, dilution, multi dispense, pipette and mix
> Individual speed setting, set parameters you are comfortable with and that match the liquid class
> Easy and rapid tip load and reloading
> Compact design to fit in a laminar flow hood
> Reduced risk of repetitive stress injury (RSI)

Applications
> Replication and reformatting of microplates
> PCR set-up in 96 well format
> Cell seeding and media change
> Reagent and compound addition
> 384 wells by 4 times 96 well pipetting
> Cell-based assays
> ELISA handling (plate coating and wash)
> Biochemical assays
> Nucleic acid purification in 96-well format

Ordering information

Description	Order no.
ep*Motion*® 96, semi-automated electronic pipette for parallel 96 channel microplate processing (without iPod® controller), 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.5 – 300 µL	5069 000.012
ep*Motion*® 96 with 2-position slider, with 2-position slider, semi-automated electronic pipette for parallel 96 channel microplate processing (without iPod® controller), 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.5 – 300 µL	5069 000.110
ep*Motion*® 96xl, semi-automated electronic pipette for parallel 96 channel microplate processing (without iPod® controller), 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 5 – 1,000 µL	5069 000.217
ep*Motion*® 96xl with 2-position slider, semi-automated electronic pipette for parallel 96 channel microplate processing (without iPod® controller), 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 5 – 1,000 µL	5069 000.314
ep*Motion*® 96 Accessories, Upgrade set 2-position slider for ep*Motion*® 96	5069 074.008
ep*Motion*® reservoir 195 mL, low dead volume reservoir, single well with 96 cavities, PCR clean, 4 x 5 reservoirs	0030 126.556

↗ Ordering information for other voltage options begins on page 418

i For more information go to www.eppendorf.com

Technical specifications subject to change.

ep*Motion*® 5070/5070f

Product features
> 4 ANSI/SLAS worktable and unlimited virtual positions
> Maximum pipetting accuracy from 0.2 to 1,000 µL
> Calibrated 1-channel and 8-channel pipetting tools
> Optical sensor[1)] for detecting liquids, labware, tips
> Compatible with tubes (0.2 mL to 50 mL) and microplates with up to 384 wells
> Automatic exchange of two pipetting tools
> Completely contained housing including door safety mechanism (except for 5070f, laminar-flow version)
> Option for compact EasyCon tablet or MultiCon PC controller by touch, mouse or keyboard, upgradable for barcode tracking and GxP software versions

[1)] Patent US 6,819,437 B2

Applications
> Serial dilutions
> Distributing reagents
> Assay set-up
> Sample transfer from individual tubes to plates
> Reformatting plates
> PCR set-up
> Cell-based assay set-up
> Immunoassay set-up
> Setting concentrations or volumes
> Media change

Special features for ep*Motion*® 5070f
> Eppendorf Light barrier beam – monitors the closure of the bench hood for safety
> Pre-programmed cell culture labware
> Sterile pipet tips available
> Autoclavable pipetting tools

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ep*Motion*® 5073l/5073m

Product features
> 6 ANSI/SLAS microplate positions
> Optical sensor[1)] for detecting liquids, labware, tips
> Automatic replacement of 2 pipetting tools and gripper
> Volume range of 0.2 to 1,000 µL for maximum pipetting accuracy
> 3D-MagSep technology, mixing, tempering, and magnetic separation all at one location
> Calibrated 1-channel and 8-channel pipetting tools
> Optional UV lamp and HEPA filter system for decontamination and clean air conditions
> Compatible with tubes (0.2 to 50 mL) and microplates with up to 384 wells

[1)] US patent 6,819,437 B2

Applications
> DNA and RNA purification
> PCR set-up
> Serial dilution and normalization of samples
> Sample or reagent transfer
> Sample mixing and tempering
> Assay set-up
> Nucleic acid extraction
> Media change and other cell culture applications

Special features for ep*Motion*® 5073
> The 6 positions of the ep*Motion*® 5073 systems, automatic tool change, and gripper option open up a wide variety of applications
> Unique combination of magnet finger module and Eppendorf ThermoMixer® allow you to separate, mixing and temper at one position (5073m)
> Thermal module (optional) 5073l

i For more information go to www.eppendorf.com

ep*Motion*® 5075l

Product features
> 15 ANSI/SLAS worktable positions
> Maximum pipetting accuracy from 0.2 to 1,000 µL
> Automatic exchange of all tools (gripper, 1-channel and 8-channel)
> Optical sensor[1)] for detecting liquids, labware, tips
> Compatible with tubes (0.2 mL to 50 mL) and microplates with up to 384 wells
> Eppendorf MultiCon PC controller to run epBlue software by touch or mouse
> Optional software extensions for handling samples with barcodes or for integration to LIMS and ELN
> Optional software extensions for supporting regulated process environments (GLP, GMP, 21 CFR part 11)
> CleanCap option – UV lamp and HEPA filter for decontamination and clean air conditions
> 3 thermal module options for heating or cooling (0 – 110 °C) of samples or reagents

Applications
> NGS library preparation
> Distributing reagents and serial dilutions
> Sample transfer from individual tubes to plates
> Reformatting plates
> Media change and other cell culture applications
> Sample pooling
> Real-time PCR set-up
> Cell-based assay set-up
> Immunoassay set-up
> Setting concentrations or volumes

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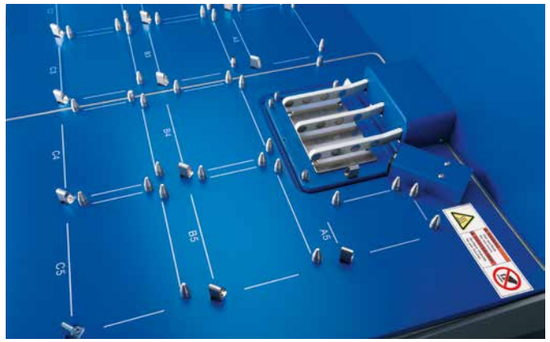
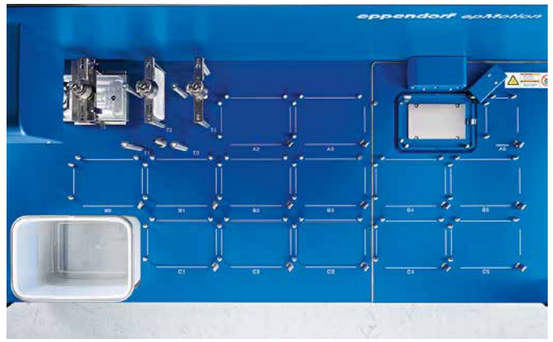
ep*Motion*® 5075t/5075m

Product features
> Same as 5075l, plus
> Integrated Eppendorf ThermoMixer® with [2D]Mix-Control technology
> Temperature control range 15 °C below RT to 95 °C
> Automatic fixing of labware for mixing up to 2,000 rpm
> Pipetting at standard positions during shaking
> 14.5 deck positions, 14 SLAS/ANSI plus small position for special reagent reservoir rack (3 reservoirs)
> 2 thermal module options





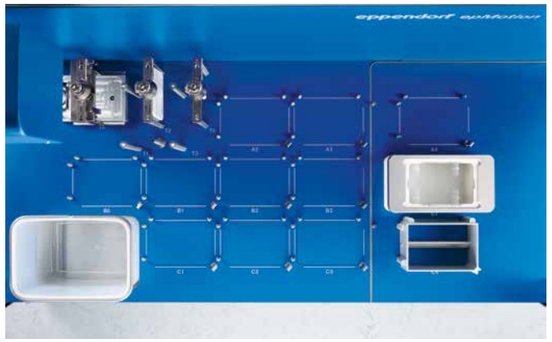
Applications
> Like 5075l, plus
> Bead applications with mixing and tempering
> Sequencing and PCR clean-up
> Nucleic acid purification
> Cell disruption
> Immunoassays
> NGS library preparation

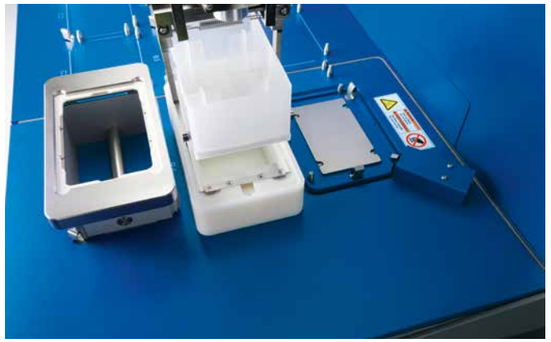
Special features for ep*Motion*® 5075m
> Same as ep*Motion* 5075t, plus
> Combination of magnetic finger module and Eppendorf ThermoMixer®
> Dedicated MagSep reagent kits for nucleic acid purification from 1 – 24 samples

i For more information go to www.eppendorf.com

ep*Motion*® 5075v/5075vt

Product features
> Same as ep*Motion* 5075l
> 12 SLAS/ANSI deck positions
> Integrated vacuum pump – silent operation, no tubing, wiring, or reservoirs to maintain
> Vacuum station fully integrated that automatically adapts to filter plates controlled by software
> Gripper for plate and labware transport
> 3 thermal module options (2 in case of 5075vt)
> Also available as 5075vt version with integrated Eppendorf ThermoMixer®





Applications
> Like 5075l with vacuum purification technologies
> Solid phase extraction
> Filtration
> DNA from blood, tissue and cells
> DNA from plants and bacteria
> Sequencing and PCR clean-up
> Total RNA isolation

Special features for ep*Motion*® 5075vt
> Integrated Eppendorf ThermoMixer® with [2D]Mix-Control technology
> Temperature control range RT -15 °C to 95 °C
> Automatic securing of labware for mixing up to 2,000 rpm

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Ordering information

Description	Order no.
ep*Motion*® 5070 EasyCon, completely contained housing, system incl. EasyCon, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5070 006.032
ep*Motion*® 5070 MultiCon, completely contained housing, system incl. MultiCon, epBlue™ software, keyboard, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5070 000.282
ep*Motion*® 5070f EasyCon, system incl. EasyCon, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5070 006.108
ep*Motion*® 5070f MultiCon, system incl. MultiCon, epBlue™ software, keyboard, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5070 000.283
ep*Motion*® 5073m EasyCon, completely contained housing, system incl. EasyCon, MagSep™ module, Eppendorf ThermoMixer®, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.787
ep*Motion*® 5073m MultiCon, completely contained housing, system incl. MultiCon, MagSep™ module, Eppendorf ThermoMixer®, epBlue™ software, keyboard, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.795
ep*Motion*® 5073mc EasyCon, CleanCap, system incl. EasyCon, MagSep™ module, Eppendorf ThermoMixer®, CleanCap, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.809
ep*Motion*® 5073mc MultiCon, CleanCap, system incl. MultiCon, MagSep™ module, Eppendorf ThermoMixer®, CleanCap, epBlue™ software, keyboard, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.817
ep*Motion*® M5073, completely contained housing, system incl. EasyCon, MagSep™ module, Eppendorf ThermoMixer®, epBlue™ software and TS 50, TS 1000, PrepRack, ReagentRack, Rack for 24 Safe-Lock Tubes, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.205
ep*Motion*® M5073c, with CleanCap, EasyCon, MagSep™ module, Eppendorf ThermoMixer®, epBlue™ software and TS 50, TS 1000, PrepRack, ReagentRack, Rack for 24 Safe-Lock Tubes, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.400
ep*Motion*® 5073l EasyCon, completely contained housing system incl. EasyCon, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.582
ep*Motion*® 5073l MultiCon, completely contained housing system incl. MultiCon, epBlue™ software, keyboard, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.590
ep*Motion*® 5073lc EasyCon, CleanCap, system incl. EasyCon, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.604
ep*Motion*® 5073lc MultiCon, CleanCap, system incl. MultiCon, epBlue™ software, keyboard, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.612
ep*Motion*® P5073, for automatic preparation of PCR reactions, with EasyCon, epBlue™ software, TS 50, TS 300, Thermoblock for PCR plates, 96 well, Rack for 24 Safe-Lock tubes, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.000
ep*Motion*® P5073c, for automatic preparation of PCR reactions, with CleanCap, EasyCon, epBlue™ software, TS 50, TS 300, Thermoblock for PCR plates, 96 well, Rack for 24 Safe-Lock tubes, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5073 000.302
ep*Motion*® 5075l, basic device incl. epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5075 000.301
ep*Motion*® 5075v, basic device incl. vacuum system, gripper, vac frame 2, vac frame holder, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5075 000.303
ep*Motion*® 5075t, basic device incl. Eppendorf ThermoMixer®,epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5075 000.302
New **ep*Motion*® 5075t NGS solution**, package with completely contained housing, MultiCon PC, Enhanced feature set 1, C2 thermal module, dispensing tools, plus NGS specific accessories, plus NGS specific consumables to start automated library preparation, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5075 000.962
New **ep*Motion*® 5075tC NGS solution**, package with CleanCap, MultiCon PC, Enhanced feature set 1, C2 thermal module, dispensing tools, plus NGS specific accessories, waste bag holder, plus NGS specific consumables to start automated library preparation, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5075 000.963
ep*Motion*® 5075vt, basic device incl. vacuum system, gripper, vac frame 2, vac frame holder, Eppendorf ThermoMixer®, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5075 000.304
ep*Motion*® 5075m, basic device incl. Eppendorf MagSep™ module, Eppendorf ThermoMixer®, epBlue™ software, mouse, waste box, 100 – 240 V ±10 %/50 – 60 Hz ±5 %, 0.2 µL – 1 mL	5075 000.305

↗ Ordering information for other voltage options begins on page 418

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Configuration options to be ordered with basic ep*Motion*® 5075 devices

Configuration option description	Ordering no.	5075l	5075t	5075v	5075vt	5075m
Eppendorf EasyCon™ tablet	5073 000.108	–	–	–	–	–
Eppendorf MultiCon PC controller incl. keyboard	5075 001.101	?	?	?	?	?
Completely contained housing	5075 751.623	?	?	?	?	?
CleanCap & completely contained housing	5075 751.607	opt.	opt.	opt.	opt.	opt.
Thermal module on position C1	5075 002.604	opt.	opt.	opt.	opt.	opt.
Thermal module on position C2	5075 002.612	opt.	opt.	opt.	opt.	opt.
Thermal module on position C3	5075 002.620	opt.	–	opt.	–	–
Gripper for labware transport, incl. holder	5282 000.018	opt.	opt.	incl.	incl.	opt.
epBlue™ ID, barcode & tracking software incl. manual barcode scanner	5075 002.701	opt.	opt.	opt.	opt.	opt.
epBlue™ GxP, software supporting regulatory compliance	5075 002.728	opt.	opt.	opt.	opt.	opt.

Legend

? Please add this option for working configuration

incl. Already included in this basic ep*Motion* device

– Selection of this option is not possible for this basic ep*Motion* device

opt. Add this option to increase functionality of this basic ep*Motion* device

epT.I.P.S.® Motion as Reload System

Description

epT.I.P.S. Motion can be used with ep*Motion*® 96 or integrated into your workstation as a reload system when combined with the tip holder. The high-quality reload tips are delivered in a PET thermoformed tray with sealed lid. Upgrading to the autoclavable, aluminum tip holder, which replaces the disposable box, provides waste reduction of up to 40 %.

Product features

> Delivered in a PET blister packaging with a sealed cap to assure quality
> Color coded trays for easy volume identification
> Reload system with autoclavable aluminum tip holder reduces plastic waste of tip boxes by up to 40 %
> Available with standard and filter/PCR clean tips

Applications

> Easy conversion with TipHolder Adapter
> TipHolder Adapter is autoclavable

Ordering information

Description	Order no.
epT.I.P.S.® Motion as Reload System, without filter	
Eppendorf Quality™, 10 µL, 2,304 tips (24 trays × 96 tips)	0030 014.545
Eppendorf Quality™, 50 µL, 2,304 tips (24 trays × 96 tips)	0030 014.421
Eppendorf Quality™, 300 µL, 2,304 tips (24 trays × 96 tips)	0030 014.464
Eppendorf Quality™, 1,000 µL, 2,304 tips (24 trays × 96 tips)	0030 014.502

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epT.I.P.S.® Motion as Reload System

Ordering information

Description	Order no.
epT.I.P.S.® Motion as Reload System, with filter	
PCR clean, 10 µL, 2,304 tips (24 trays × 96 tips)	0030 014.553
PCR clean, 50 µL, 2,304 tips (24 trays × 96 tips)	0030 014.430
PCR clean, 300 µL, 2,304 tips (24 trays × 96 tips)	0030 014.472
PCR clean, 1,000 µL, 2,304 tips (24 trays × 96 tips)	0030 014.510
PCR clean and sterile, 10 µL, 2,304 tips (24 trays × 96 tips)	0030 014.561
PCR clean and sterile, 50 µL, 2,304 tips (24 trays × 96 tips)	0030 014.529
PCR clean and sterile, 300 µL, 2,304 tips (24 trays × 96 tips)	0030 014.537
TipHolder, for epT.I.P.S.® Motion Reloads	5075 751.399

epT.I.P.S.® Motion pipette tips

Description
Automated pipetting processes place high demands on the design and material of pipette tips used. Eppendorf has specially designed the epT.I.P.S. Motion for use on the ep*Motion*® 5070, 5073 and 5075 Liquid Handling Workstation. epT.I.P.S. Motion pipette tips, with and without filters, developed in torsion-resistant, clean racks.

Product features
> Color-coded trays for direct volume identification
> O-ring on dispensing tools assures an optimal fit each time
> Optical sensor automatically identified tip type

Applications
> Available in multiple purity grades
> Easily exchangeable, no additional labware files required
> Also available as reload system
> Also availabe as epT.I.P.S. Motion SafeRacks recommended for re-use tips feature

Ordering information

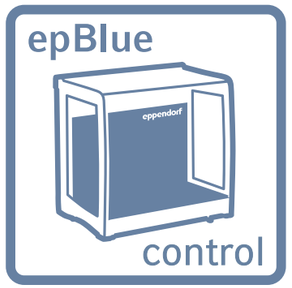
Description	Order no.
epT.I.P.S.® Motion pipette tips, without filter	
Sterile, 10 µL, 960 tips (10 racks × 96 tips)	0030 015.185
Sterile, 50 µL, 960 tips (10 racks × 96 tips)	0030 015.207
Sterile, 300 µL, 960 tips (10 racks × 96 tips)	0030 015.223
Sterile, 1,000 µL, 960 tips (10 racks × 96 tips)	0030 015.240
Eppendorf Quality™, 10 µL, 960 tips (10 racks × 96 tips)	0030 014.383
Eppendorf Quality™, 50 µL, 960 tips (10 racks × 96 tips)	0030 014.405
Eppendorf Quality™, 300 µL, 960 tips (10 racks × 96 tips)	0030 014.448
Eppendorf Quality™, 1,000 µL, 960 tips (10 racks × 96 tips)	0030 014.480
epT.I.P.S.® Motion pipette tips, with filter	
PCR clean and sterile, 10 µL, 960 tips (10 racks × 96 tips)	0030 015.193
PCR clean and sterile, 50 µL, 960 tips (10 racks × 96 tips)	0030 015.215

i For more information go to www.eppendorf.com

Ordering information

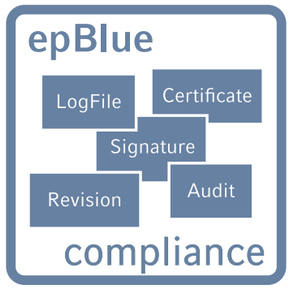
Description	Order no.
PCR clean and sterile, 300 µL, 960 tips (10 racks × 96 tips)	0030 015.231
PCR clean and sterile, 1,000 µL, 960 tips (10 racks × 96 tips)	0030 015.258
PCR clean, 10 µL, 960 tips (10 racks × 96 tips)	0030 014.391
PCR clean, 50 µL, 960 tips (10 racks × 96 tips)	0030 014.413
PCR clean, 300 µL, 960 tips (10 racks × 96 tips)	0030 014.456
PCR clean, 1,000 µL, 960 tips (10 racks × 96 tips)	0030 014.499
epT.I.P.S.® Motion as SafeRack tips, without filter	
Eppendorf Quality™, 50 µL, 960 tips (10 racks × 96 tips)	0030 014.600
Eppendorf Quality™, 300 µL, 960 tips (10 racks × 96 tips)	0030 014.626
Eppendorf Quality™, 1,000 µL, 960 tips (10 racks × 96 tips)	0030 014.642
epT.I.P.S.® Motion as SafeRack tips, with filter	
PCR clean, 50 µL, 960 tips (10 racks × 96 tips)	0030 014.618
PCR clean, 300 µL, 960 tips (10 racks × 96 tips)	0030 014.634
PCR clean, 1,000 µL, 960 tips (10 racks × 96 tips)	0030 014.650

Software



epBlue™ ep*Motion*® PC software
> Graphical user interface
> Main menu with direct access to the most important functions
> 3D view of workstation and run simulation
> User administration with password protection
> Importing of files for normalization and cherry picking
> Printing and archiving protocols
> Pre-installed on all ep*Motion* systems
> Create, edit and simulate application on any Windows 7, 8 or 10 PC with ep*Motion* Editor 40 software product

epBlue™ ID software
> Visual tracking of the scan procedure
> Automatic checking of the worktable
> Scanning of individual reaction vessels and microplates
> Documentation of reagent type and batch
> CSV or XML-based results file
> Compatible with LIMS-generated work lists
> Data exchange with 2D barcode readers
> Easy to operate



epBlue™ GxP software
> Complete electronic documentation
> Access control and user level management
> Audit trail and log file
> Revision management
> Electronic signatures
> Electronic certificates according to industry-standard algorithm
> Exporting and archiving of digitally signed documents
> Database system
> Supplied certificates
> Expansion via epBlue ID (optional)

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Software

Ordering information

Description	Order no.
epBlue™ ID barcode and tracking software incl. manual barcode scanner, modular expansion of epBlue™ for barcode support. Incl. manual barcode reader with stand. Compatible with epBlue™ version 40.1 and higher	5075 002.701
epBlue™ ID software and hardware modification kit, for 5070 and 5075 PC versions (SN < 4000), barcode support includes software, barcode reader and stand, compatible with all ep*Motion*® PC versions except ep*Motion*® 5075 MC PC version, not compatible with the ep*Motion*® operator panel or EasyCon versions	5075 000.830
epBlue™ GxP software, for use in supporting process environments (according to GLP, GMP, 21 CFR part 11), as configuration option or for pre-installed ep*Motion*® MultiCon versions with epBlue™ version 40.1 to 40.5, with epBlue™ GxP software, corresponding firmware, certificates	5075 002.728
ep*Motion*® Editor, incl. editor key, software package for creating and editing applications, runs on the PC, compatible with epBlue™ 10.x versions	5075 014.009
ep*Motion*® Editor, incl. editor key, for creating and editing applications, runs on the PC, compatible with epBlue™ 10.x versions, additional license	5075 015.200
ep*Motion*® Editor 40, software CD ROM with instructions, used to create, edit and simulate application on a PC, compatible with epBlue™ version >40.x	5075 014.220
ep*Motion*® Editor 40, additional software license	5075 014.300
Enhanced Feature Set 1, license for epBlue™ additional features: Calculated , samples; Automatic tool selection; Start at command; Email notification, requires service visit and epBlue >40.6	5075 000.964

ep*Motion*® Accessories

Dispensing tools
> 8 dispensing tools from 0.2 µL to 1,000 µL are available
> 4 single channel and 4 multi channel
> Autoclavable and calibrated based on ISO 8655-6

Reservoir Rack
> For holding up to 7 reservoir rack modules or reagent reservoirs
> Temperature controlled when used with a thermal module

Reservoir Rack Module TC
> Modules for the reservoir rack
> 10 modules are available for tube volumes from 0,2 mL to 50 mL
> 3 Modules for reservoirs 10, 30 and 100 mL
> Temperature controlled when used with a thermal module

i For more information go to www.eppendorf.com

Rack for single test tubes
> For micro test tubes, glass, or plastic tubes of various sizes

ep*Motion*® thermoracks and adapters
> For use with 96-well or 384-well plates and single 0.2 mL tubes
> Temperature controlled when used with a thermal module

ep*Motion*® thermoadapters
> For heating and cooling of Deepwell Plates
> Plates can be exchanged by gripper
> Temperature controlled when used with a thermal module

Thermorack Rotor/Tubes
> Special adapter for temperature controlled pipetting of Qiagen® Rotor-Disc® 72/100 and 20 tubes 1.5/2.0 mL
> Temperature controlled when used with a thermal module

Thermorack for 24 tubes
> Use with 1.5 mL or 2.0 mL Eppendorf Safe-Lock tubes
> Adapters for 0.5 mL tubes included
> Available also for Cryo tubes
> Temperature controlled when used with a thermal module

Ordering information

Description	Order no.
Rack Smart, for holding one tube rack of SmartCycler™ reaction tubes	5075 790.009
Rack LC 20 µL/100 µL, for up to 96 × 20 µL or 100 µL LightCycler® capillaries for use with Centrifuge 5804/5804 R or 5810/5810 R and other devices, set of 2	5075 795.000
Thermorack CB, for up to 384 × 0.1 mL strip tubes in the Qiagen® Rotor-Gene®	5075 767.031
Thermorack Rotor/Tubes, for temperature controlled pipetting of Qiagen® Rotor-Disc® 72/100 and 20 tubes 1.5/2.0 mL	5075 751.526
Thermoblock PCR 96 OC, for temperature control and safe piercing of sealed, semi-skirted PCR plates with orientation control	5075 751.666
Thermoadapter for PCR, for temperature control of PCR plates, 96 wells, skirted	5075 787.008
Thermoadapter for PCR, for temperature control of PCR plates, 384 wells, skirted	5075 788.004
Thermoadapter Frosty, combination of height adapter and PCR-Cooler, for cooling skirted PCR plates	5075 789.000
CycleLock Starter Set, 1 frame and 8 mats for automated sealing of Eppendorf PCR plates, can only be used with Mastercycler ep, PCR clean	0030 126.530

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ep*Motion*® Accessories

Ordering information

Description	Order no.
CycleLock mats, 5 sealing mats, frame not included, PCR clean	0030 126.548
Lid for Thermorack Rotor/Tubes, with adapter for placing the lid on the ep*Motion*® worktable	5075 751.640
ep*Motion*® height adapter, for leveling labware, enables faster plate processing	
40 mm, for pipette tips	5075 755.009
55 mm	5075 752.000
85 mm	5075 751.003
Thermoadapter for Microplate 96/V/U, for holding and temperature control of Eppendorf Microplates with V or U bottom	5075 751.577
Thermoblock DWP 2000, for 2 mL Eppendorf Deepwell Plates 96/2000	5075 751.330
Thermoadapter DWP 96, for Deepwell Plates 96/1000	5075 751.054
Thermoadapter LC Sample, for MagNA Pure LC sample cartridge	5075 751.305
Rack ILMN tubes, Rack for single tubes, 40 × ø 8.4 mm and 12 × ø 11.2 mm, transportable, autoclavable	5075 751.747
Rack for single test tubes, for presenting Eppendorf reaction vessels, glass or plastic tubes, not temperable	
Ø 17 mm × 100 mm max. length	5075 761.009
Ø 17 mm × 60 mm max. length	5075 775.000
Ø 16 mm × 100 mm max. length	5075 760.002
Ø 16 mm × 60 mm max. length	5075 776.006
Ø 15 mm × 100 mm max. length	5075 792.028
Ø 15 mm × 60 mm max. length	5075 792.044
Ø 14 mm × 100 mm max. length	5075 792.001
Ø 14 mm × 60 mm max. length	5075 792.060
Ø 13 mm × 100 mm max. length	5075 762.005
Ø 13 mm × 60 mm max. length	5075 792.087
Ø 12 mm × 100 mm max. length	5075 763.001
Ø 12 mm × 60 mm max. length	5075 792.109
Rack, for 24 HPLC tubes, Ø 12 mm × 40 mm max. length	5075 792.125
Rack, for 96 screw cap tubes, 1.5/2.0 mL	5075 791.005
Rack for 24 tubes, for 24 Safe-Lock tubes, no tempering	
0.5/1.5/2.0 mL	5075 751.453
1.5/2.0 mL	5075 751.275
Reservoir rack, for presenting 10 mL, 30 mL and 100 mL reagent reservoirs. Up to 7 reservoirs or Reservoir Rack modules can be presented.	5075 754.002
Extension plate 5075l to TMX and VAC, to be ordered with 5075 000.620 and 5075 000.630 (for units SN>4000)	5075 000.640
Modification kit TMX for 5075l, to modify a 5075l with Eppendorf ThermoMixer® to a 5075t (for units SN>4000)	5075 000.630
Modification kit VAC for 5075l, to modify a 5075l to a 5075v version (for units SN>4000)	5075 000.620
VAC, for retrofitting a 5075 LH version into a VAC version	5075 000.610
TMX, for retrofitting a 5075 LH version into a 5075 TMX version	5075 000.628
TMX expansion board VAC, order with 5075 000.628	5075 000.636
Thermal module, thermal module for heating or cooling (0 – 100 °C) thermoadapters, thermoblock and thermoracks	5075 757.001
TS 10 single channel dispensing tool, 0.2 – 10 µL volume range	5280 000.100
TS 50 single-channel dispensing tool, 1 – 50 µL volume range	5280 000.010
TS 300 single-channel dispensing tool, 20 – 300 µL volume range	5280 000.037
TS 1000 single-channel dispensing tool, 40 – 1,000 µL volume range	5280 000.053
TM 10-8 eight-channel dispensing tool, 0.2 – 10 µL volume range	5280 000.304
TM 50-8 eight-channel dispensing tool, 1 – 50 µL volume range	5280 000.215
TM 300-8 eight-channel dispensing tool, 20 – 300 µL volume range	5280 000.231
TM 1000-8 eight-channel dispensing tool, 40 – 1,000 µL volume range	5280 000.258
Holder for 6 dispensing tools	5075 774.003
Gripper, incl. holder, for transporting plates on the worktable and automatic operation of the vacuum manifold	5282 000.018
Work surface adapter, for raising the ep*Motion*® worktable by 5.5 cm, 4 feet	5070 752.001
Thermoblock for PCR, for temperature control of 96 vessels 0.2 mL, 77 PCR tubes 0.5 mL or one PCR plate 96 wells, semi-skirted	5075 766.000
Thermoblock for PCR, for temperature control of PCR plate 384 wells, semi-skirted	5075 767.007
Thermorack, for 24 Safe-Lock tubes, temperable, 0.5/1.5/2.0 mL	5075 769.000

Ordering information

Description	Order no.
Thermorack, for 24 Safe-Lock tubes, temperable, 1.5/2.0 mL	5075 771.004
Thermorack TMX, for 24 Safe-Lock micro test tubes, 0.5 mL/1.5 mL/2.0 mL	5075 751.160
Thermorack TMX, for 24 Safe-Lock tubes, temperable, 1.5/2.0 mL	5075 751.186
Thermorack, for 24 Cryo tubes	5075 777.055
Adapter sleeves, to retrofit the 1.5/2.0 mL thermoracks for use with 0.5 mL vessels, 1 set of 25 pieces	5075 772.000
Holder for Vac Frame	5075 778.009
Vacuum lid	5075 779.005
Mat for vacuum lid	5075 793.008
Vac Frame 1, 16 mm height, recommended for filter plates from 5Prime, Invitek	5075 784.009
Vac Frame 2, 26 mm height, recommended for filter plates from MN, Promega or Qiagen	5075 785.005
Elution plate adapter, for processing micro tubes in racks	5075 785.030
Anticontamination plate adapter, for vacuum processes with foaming solutions in multiwell plates, set of 10	5075 794.004
Vac Thermo lid	5075 796.007
Waste container with ring, for holding used pipette tips	5075 753.006
Waste bag holder, for ep*Motion*® 5070/5073/5075 waste position	5075 753.103
Panel plate, for control panel rest, mounted at front left side of ep*Motion*® unit	5075 798.000
Collection plate adapter MN, type for VAC station	5075 785.064
PrepRack for 24 Eppendorf Safe-Lock Tubes 2 mL, for nucleic acid preparation with Eppendorf MagSep™ kits	5073 751.006
Liquid Waste Tub, incl. lid, to mount in the waste box, autoclavable, working volume 115 mL	5075 751.500
Liquid Waste Tub 400 mL, to mount in waste bag holder and waste container of ep*Motion*®, with lid, autoclavable, working volume 400 mL	5075 751.720
Reservoir Rack 3, for max. three 30 mL or 100 mL reservoirs, only for 5075t, 5075m	5075 754.070
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 8 × PCR tubes 0.2 mL	5075 799.049
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 4 × Safe-Lock tubes 0.5/1.5/2.0 mL	5075 799.081
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 4 × Eppendorf Tubes® 5.0 mL	5075 799.340
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 4 × reaction vessels Ø 12 mm	5075 799.103
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 4 × reaction vessels Ø 16 mm	5075 799.120
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 4 × reaction vessels Ø 17 mm	5075 799.162
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 2 × reaction vessels Ø 29 mm	5075 799.189
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 1 × reservoir 10 mL	5075 799.421
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 1 × reservoir 30 mL	5075 799.146
Reservoir Rack Module TC, for use in ep*Motion*® Reservoir Racks, temperable, 1 × reservoir 100 mL	5075 799.260
ep*Motion*® reservoir 10 mL, small-volume container for reagent presentation on the ep*Motion*®, can only be inserted with the Reservoir Rack; production batch testing, certified, 10 mL, 10 × 5 reservoirs in the bag, PCR clean, polypropylene	0030 126.521
ep*Motion*® reservoir 30 mL, large-volume container for reagent presentation on the ep*Motion*®, can only be inserted with the Reservoir Rack; production batch testing, certified, 30 mL, 10 × 5 reservoirs in the bag, PCR clean, polypropylene	0030 126.505
ep*Motion*® reservoir 100 mL, large-volume container for reagent presentation on the ep*Motion*®, can only be inserted with the Reservoir Rack; production batch testing, certified, 100 mL, 10 × 5 reservoirs in the bag, PCR clean, polypropylene	0030 126.513
ep*Motion*® reservoir 400 mL, large-volume container for reagent presentation on the ep*Motion*®; production batch testing, certified, 400 mL, 10 reservoirs, PCR clean, autoclavable, polypropylene	5075 751.364
ep*Motion*® reservoir 195 mL, low dead volume reservoir, single well with 96 cavities, PCR clean, 4 x 5 reservoirs	0030 126.556
Waste bags bio., for ep*Motion*® 5070/5073/5075 waste position, up to 7 L volume, ideal for disposing of biologically hazardous waste, autoclavable, PP material, thickness 50 µm, transparent, 50 bags	5075 751.763
Waste bags, for ep*Motion*® 5070/5073/5075 waste position, up to 7 L volume, ideal for disposing of non hazardous waste, autoclavable, PP material, thickness 50 µm, transparent, 50 bags	5075 751.780

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