





Liquid Handling

One of the most important, fundamental activities in modern laboratories is the careful handling of the ever smaller quantities of liquids used. The precision transfer of liquids in quantities from milliliters down to nanoliters is still a challenge today.

Their impressive ergonomic design, high precision, and superb quality have contributed to making BRAND liquid handling instruments known around the world for excellence.





Bottle-top dispensers

from page 19

Dispensette®
seripettor®



Bottle-top burette

from page 39

Titrette®



Single and multichannel microliter pipettes and pipette tips

from page 45

Transferpette®
Transferpettor



Repetitive pipettes and PD-Tips

from page 87

HandyStep®



Pipetting aids

from page 97

accu-jet®
macro, micro



Bottle-top aspirator

from page 103

QuikSip™



Pipette leak testing unit

from page 105

PLT unit



Calibration software

from page 109

EASYCAL™

Dispensette® III
Dispensette® Organic
Dispensette® TA NEW!

The Dispensette® bottle-top dispenser has proven itself the world over with its wide range of practical applications. It has been continuously improved over decades to meet the increasing demands of the laboratory.



Dispensette®
Bottle-top Dispenser



Models The wide range of Dispensette® bottle-top dispensers provides premium dispensing options for the complete spectrum of liquid reagents:

Dispensette® III

(red color-code)

- Digital · Easy Calibration type
- Analog-adjustable type
- Fixed-volume type



For dispensing aggressive reagents

including concentrated acids such as H_3PO_4 , H_2SO_4 , bases like NaOH, KOH, saline solutions, as well as many organic solvents.

■ Parts in contact with medium

borosilicate glass, ceramic, platinum-iridium, ETFE, FEP, PFA, PTFE and PP (discharge tube safety screw cap)

■ Operating limits

vapor pressure max. 600 mbar
viscosity max. 500 mm²/s
temperature max. 40 °C
density max. 2.2 g/cm³

Dispensette® Organic

(yellow color-code)

- Digital · Easy Calibration type
- Analog-adjustable type
- Fixed-volume type



For dispensing organic solvents

including chlorinated and fluorinated hydrocarbons (e.g., trichlorotrifluoro-ethane and dichloromethane), concentrated acids such as HCl and HNO_3 , trifluoroacetic acid (TFA), tetra-hydrofuran (THF) and peroxides.

■ Parts in contact with medium

borosilicate glass, ceramic, tantalum, ETFE, FEP, PFA, PTFE and PP (discharge tube safety screw cap)

■ Operating limits

vapor pressure max. 600 mbar
viscosity max. 500 mm²/s
temperature max. 40 °C
density max. 2.2 g/cm³

Areas of application

(For assistance in selecting a system, please see the guide on page 23)

Bases	Saline solutions	Acids	Organic solvents
Dispensette® III			
		Dispensette® Organic	

Note! For dispensing HF, we recommend the use of the Dispensette® TA bottle-top dispenser with platinum-iridium valve spring (Cat. No. 4740 041, page 32).

A Closer Look...

The Digital · Easy Calibration type has a digital display and all the features that make dispensing safer and convenient.

Mechanical/digital display

The mechanical volume setting is easy to read and ensures accurate and reproducible volume control.



Easy Calibration Technique

Calibration and adjustments according to ISO 9001 and GLP are done within seconds. Alteration of factory setting is automatically indicated by a red recalibration flag. For more information please see page 324.

SafetyPrime™ recirculation valve

The SafetyPrime™ recirculation valve (optional) reduces risk of splashes caused by air bubbles during instrument priming and permits recirculation during priming to avoid reagent waste. Valve control knob clearly indicates valve position.

Easy to use

The minimal force needed to operate the floating piston makes serial dispensing convenient and effortless.

Safety discharge system

The integrated safety discharge system reduces the risk of inadvertent dispensing and splashes if discharge tube is improperly installed or missing.

Rotating valve block

To allow the bottle label to face the user, the valve block can be rotated 360°. The 45 mm standard thread plus the included adapters fit common lab bottles.

Telescoping filling tube

Adjusts easily to different size bottles – without measuring or cutting.

Discharge tube safety screw cap

Screw cap protects against reagent contact and is easy to attach and remove, even while wearing gloves.



Use and Handling



One-handed operation

Each piston is matched individually with precise tolerances to its cylinder. A thin liquid film acts as a non-wearing seal that reduces friction, so dispensing is easy and convenient.



Dispensing sterile fluids

The instrument can be autoclaved at 121 °C and may be fitted with an optional micro-filter to prevent contamination of the bottle contents. Sterile technique must be followed.



Serial dispensing

To facilitate serial dispensing, the optional flexible discharge tube with safety handle permits fast and precise dispensing even into narrow test tubes. The functions of the safety discharge system and SafetyPrime™ recirculation valve are fully maintained with the flexible discharge tube.



Dispensing sensitive reagents

The optional drying tube screws into the ventilation aperture at the rear of the instrument. Filled with a suitable absorbing agent, it can protect sensitive reagents against humidity or CO₂.

General features of the Dispensette® bottle-top dispenser

- Dispensing directly from the supply bottle
- Easy to dismantle for cleaning
- Replaceable filling valves
- Autoclavable at 121 °C
- DE-M marking
- Easy to calibrate and adjust in order to comply with ISO 9001 and GLP guidelines. A positive indicator automatically indicates adjustment from factory settings.




Dispenser Selection Chart

Reagent	Disp. III	Disp. Organic	Reagent	Disp. III	Disp. Organic	Reagent	Disp. III	Disp. Organic
Acetaldehyde	+	+	Cyclohexane		+	Methylene chloride		+
Acetic acid (glacial), 100%	+	+	Cyclohexanone	+	+	Mineral oil (Engine oil)	+	+
Acetic acid, ≤ 96%	+	+	Cyclopentane		+	Monochloroacetic acid	+	+
Acetic anhydride		+	Decane	+	+	Nitric acid, ≤ 30%	+	+
Acetone	+	+	1-Decanol	+	+	Nitric acid, 30-70% */**		+
Acetonitrile	+	+	Dibenzyl ether	+	+	Nitrobenzene	+	+
Acetophenone		+	Dichloroacetic acid		+	Oleic acid	+	+
Acetyl chloride		+	Dichlorobenzene	+	+	Oxalic acid	+	
Acetylacetone	+	+	Dichloroethane		+	n-Pentane		+
Acrylic acid	+	+	Dichloroethylene		+	Peracetic acid		+
Acrylonitrile	+	+	Dichloromethane		+	Perchloric acid	+	+
Adipic acid	+		Diesel oil (Heating oil), bp 250-350 °C		+	Perchloroethylene		+
Allyl alcohol	+	+	Diethanolamine	+	+	Petroleum, bp 180-220 °C		+
Aluminium chloride	+		Diethyl ether		+	Petroleum ether, bp 40-70 °C		+
Amino acids	+		Diethylamine	+	+	Phenol	+	+
Ammonia, ≤ 20%	+	+	Diethylbenzene	+	+	Phenylethanol	+	+
Ammonia, 20-30%		+	Diethylene glycol	+	+	Phenylhydrazine	+	+
Ammonium chloride	+		Dimethyl sulfoxide (DMSO)	+	+	Phosphoric acid, ≤ 85%	+	+
Ammonium fluoride	+		Dimethylaniline	+		Phosphoric acid, 85% + Sulfuric acid, 98%, 1:1	+	+
Ammonium sulfate	+		Dimethylformamide (DMF)	+	+	Piperidine	+	+
n-Amyl acetate	+	+	1,4 Dioxane		+	Potassium chloride	+	
Amyl alcohol (Pentanol)	+	+	Diphenyl ether	+	+	Potassium dichromate	+	
Amyl chloride (Chloropentane)		+	Essential oil		+	Potassium hydroxide	+	
Aniline	+	+	Ethanol	+	+	Potassium permanganate	+	
Barium chloride	+		Ethanolamine	+	+	Propionic acid	+	+
Benzaldehyde	+	+	Ethyl acetate	+	+	Propylene glycol (Propanediol)	+	+
Benzene (Benzol)	+	+	Ethylbenzene		+	Pyridine	+	+
Benzine (Petroleum benzin), bp 70-180 °C		+	Ethylene chloride		+	Pyruvic acid	+	+
Benzoyl chloride	+	+	Fluoroacetic acid		+	Salicylaldehyde	+	+
Benzyl alcohol	+	+	Formaldehyde, ≤ 40%	+		Scintillation fluid	+	+
Benzylamine	+	+	Formamide	+	+	Silver acetate	+	
Benzylchloride	+	+	Formic acid, ≤ 100%		+	Silver nitrate	+	
Boric acid, ≤ 10%	+	+	Glycerol	+	+	Sodium acetate	+	
Bromobenzene	+	+	Glycol (Ethylene glycol)	+	+	Sodium chloride	+	
Bromonaphthalene	+	+	Glycolic acid, ≤ 50%	+	+	Sodium dichromate	+	
Butanediol	+	+	Heating oil (Diesel oil), bp 250-350 °C		+	Sodium fluoride	+	
1-Butanol	+	+	Heptane		+	Sodium hydroxide, ≤ 30%	+	
n-Butyl acetate	+	+	Hexane		+	Sodium hypochlorite	+	
Butyl methyl ether	+	+	Hexanoic acid	+	+	Sulfuric acid, ≤ 98%	+	+
Butylamine	+	+	Hexanol	+	+	Tartaric acid	+	
Butyric acid	+	+	Hydriodic acid, ≤ 57% **	+	+	Tetrachloroethylene		+
Calcium carbonate	+		Hydrobromic acid		+	Tetrahydrofuran (THF) */**		+
Calcium chloride	+		Hydrochloric acid, ≤ 20%	+	+	Tetramethylammonium hydroxide	+	
Calcium hydroxide	+		Hydrochloric acid, 20-37% **	+	+	Toluene		+
Calcium hypochlorite	+		Hydrogen peroxide, ≤ 35%		+	Trichloroacetic acid		+
Carbon tetrachloride		+	Isoamyl alcohol	+	+	Trichlorobenzene		+
Chloro naphthalene	+	+	Isobutanol	+	+	Trichloroethane		+
Chloroacetaldehyde, ≤ 45%	+	+	Isocetane		+	Trichloroethylene		+
Chloroacetic acid	+	+	Isopropanol (2-Propanol)	+	+	Trichlorotrifluoro ethane		+
Chloroacetone	+	+	Isopropyl ether	+	+	Triethanolamine	+	+
Chlorobenzene	+	+	Lactic acid	+		Triethylene glycol	+	+
Chlorobutane	+	+	Methanol	+	+	Trifluoro ethane		+
Chloroform		+	Methoxybenzene	+	+	Trifluoroacetic acid (TFA)		+
Chlorosulfonic acid	+	+	Methyl benzoate	+	+	Turpentine		+
Chromic acid, ≤ 50%	+	+	Methyl butyl ether	+	+	Urea	+	
Chromosulfuric acid	+		Methyl ethyl ketone	+	+	Xylene		+
Copper sulfate	+		Methyl formate	+	+	Zinc chloride, ≤ 10%	+	
Cresol		+	Methyl propyl ketone	+	+	Zinc sulfate, ≤ 10%	+	
Cumene (Isopropyl benzene)	+	+						

The above recommendations reflect testing completed prior to publication. Always follow instructions in the operating manual of the instrument as well as the reagent manufacturer's specifications. In addition to these chemicals, a variety of organic and inorganic saline solutions (e.g., biological buffers), biological detergents and media for cell culture can be dispensed. Should you require information on chemicals not listed, please feel free to contact BRAND. Status as of: 1014/13

* use ETFE/PTFE bottle adapter
 ** use PTFE seal for valve block

Note!  For dispensing HF, we recommend the use of the Dispensette® TA bottle-top dispenser with platinum-iridium valve spring (Cat. No. 4740 041, page 32).

Ordering Data

Items supplied:

Each Dispensette® bottle-top dispenser has DE-M marking and is supplied with performance certificate, discharge tube, telescoping filling tube, SafetyPrime™ recirculation valve (optional), mounting tool and adapters of polypropylene:

Dispensette® nominal volume, ml	Adapter for bottle thread	Filling tube length, mm
0.5	GL 25, GL 28, GL 32	125-240
1, 2, 5, 10	GL 25, GL 28, GL 32, GL 38, S 40	125-240
25, 50, 100	GL 32, GL 38, S 40	170-330

Dispensette® III, Digital · Easy Calibration

Capacity ml	Subdivision ml	A* ≤ ± %	μl	CV* ≤ %	μl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
0.2 - 2	0.01	0.5	10	0.1	2	4700 320	4700 321
0.5 - 5	0.02	0.5	25	0.1	5	4700 330	4700 331
1 - 10	0.05	0.5	50	0.1	10	4700 340	4700 341
2.5 - 25	0.1	0.5	125	0.1	25	4700 350	4700 351
5 - 50	0.2	0.5	250	0.1	50	4700 360	4700 361



Dispensette® III, Analog-adjustable

Capacity ml	Subdivision ml	A* ≤ ± %	μl	CV* ≤ %	μl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
0.05 - 0.5	0.01	1.0	5	0.2	1	4700 100	4700 101
0.2 - 2	0.05	0.5	10	0.1	2	4700 120	4700 121
0.5 - 5	0.1	0.5	25	0.1	5	4700 130	4700 131
1 - 10	0.2	0.5	50	0.1	10	4700 140	4700 141
2.5 - 25	0.5	0.5	125	0.1	25	4700 150	4700 151
5 - 50	1.0	0.5	250	0.1	50	4700 160	4700 161
10 - 100	1.0	0.5	500	0.1	100	4700 170	4700 171



Dispensette® III, Fixed-volume

Capacity ml	A* ≤ ± %	μl	CV* ≤ %	μl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
1	0.5	5	0.1	1	4700 210	4700 211
2	0.5	10	0.1	2	4700 220	4700 221
5	0.5	25	0.1	5	4700 230	4700 231
10	0.5	50	0.1	10	4700 240	4700 241
Special fixed volumes: 0.5-100 ml (please state when ordering)					4700 290	4700 291



* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-5. DE-M marking.
 A = Accuracy, CV = Coefficient of variation

Dispensette® Organic, Digital · Easy Calibration

Capacity ml	Subdivision ml	A* ≤ ±		CV* ≤		without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
		%	µl	%	µl		
0.5 - 5	0.02	0.5	25	0.1	5	4730 330	4730 331
1 - 10	0.05	0.5	50	0.1	10	4730 340	4730 341
2.5 - 25	0.1	0.5	125	0.1	25	4730 350	4730 351
5 - 50	0.2	0.5	250	0.1	50	4730 360	4730 361



Dispensette® Organic, Analog

Capacity ml	Subdivision ml	A* ≤ ±		CV* ≤		without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
		%	µl	%	µl		
0.5 - 5	0.1	0.5	25	0.1	5	4730 130	4730 131
1 - 10	0.2	0.5	50	0.1	10	4730 140	4730 141
2.5 - 25	0.5	0.5	125	0.1	25	4730 150	4730 151
5 - 50	1.0	0.5	250	0.1	50	4730 160	4730 161
10 - 100	1.0	0.5	500	0.1	100	4730 170	4730 171




Dispensette® Organic, Fix

Capacity ml	A* ≤ ±		CV* ≤		without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
	%	µl	%	µl		
5	0.5	25	0.1	5	4730 230	4730 231
10	0.5	50	0.1	10	4730 240	4730 241
Special fixed volumes: 2-100 ml (please state when ordering)					4730 290	4730 291



* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-5. DE-M marking.
 A = Accuracy, CV = Coefficient of variation

Note!  When ordering instruments with DAkkS calibration certificates, the prefix 'DAkkS' must be added to the order number, e.g., DAkkS 4700 321.

BRAND also offers calibration service at the factory lab. For more information, please see page 326.

Accessories and Spare Parts

(Other spare parts and accessories can be found in the operating manual.)

Discharge tubes with integrated valve

Pack of 1.



Description	Nominal volume ml	Shape	Length mm	Cat. No.
■ for Dispensette® III	0.5, 1, 2, 5, 10	fine tip	90	7079 15
	5, 10	standard	90	7079 16
	25, 50, 100	standard	120	7079 17
■ for Dispensette® Organic	0.5, 1, 2, 5, 10	fine tip	120	7079 18
	25, 50, 100	fine tip	90	7079 35
	5, 10	standard	90	7079 36
	25, 50, 100	standard	120	7079 37
	25, 50, 100	fine tip	120	7079 38

Bottle adapters

For Dispensette®, Titrette®, seripettor® and QuikSip™.

PP or ETFE. Adapters of ETFE offer higher chemical resistance. Pack of 1.



Outer thread	for bottle thread/ ground joint	Material	Cat. No.
GL 32	GL 25	PP	7043 25
GL 32	GL 28 / S 28	PP	7043 28
GL 32	GL 30	PP	7043 30
GL 32	GL 45	PP	7043 45
GL 45	GL 32	PP	7043 96
GL 45	GL 35	PP	7044 31
GL 45	GL 38	PP	7043 97
GL 45	S* 40	PP	7043 43
GL 45	S* 54	PP	7044 30
GL 45	S* 60	PP	7043 48
GL 32	GL 25	ETFE	7043 75
GL 32	GL 28 / S 28	ETFE	7043 78
GL 32	GL 30	ETFE	7043 80
GL 32	GL 45	ETFE	7043 95
GL 45	GL 32	ETFE	7043 98
GL 45	GL 38	ETFE	7043 99
GL 45	S* 40	PTFE	7043 91
GL 32	NS 19/26	PP	7044 19
GL 32	NS 24/29	PP	7044 24
GL 32	NS 29/32	PP	7044 29

* buttress thread

SafetyPrime™ recirculation valves

Pack of 1.



Description	Cat. No.
■ for Dispensette® III 1-100 ml	7060 80
■ for Dispensette® III 0.5 ml	7060 81
■ for Dispensette® Organic	7060 90

Discharge tube with Luer-Lock attachment for micro filter

With integrated valve.
Pack of 1.

Cat. No. **7079 28***

* not suitable for HF and Peroxide



Bottle Stand

PP. Full plastic material – suitable for use in aggressive environment (e.g., acid fumes in the hood). Support rod 325 mm, base plate 220 x 160 mm, weight 1130 g.
Pack of 1.

Cat. No. **7042 75**



Threaded bottles, coated and uncoated, see page 299.

Telescoping filling tubes

FEP. Adjusts to various bottle heights.
 Pack of 1.



Nominal volume ml	Outer Ø mm	Length mm	Cat. No.
0.5, 1, 2, 5, 10	6	70-140	7042 02
		125-240	7042 03
		195-350	7042 08
		250-480	7042 01
25, 50, 100	7.6	170-330	7042 04
		250-480	7042 05

Flexible discharge tubing

PTFE tube, coiled, length approx. 800 mm, with safety handle. Pack of 1.



Nominal volume ml	Discharge tube		Cat. No.
	Outer Ø mm	Inner Ø mm	
1, 2, 5, 10	3	2	7079 25*
25, 50, 100	4.5	3	7079 26*

* not suitable for HF and Peroxide

Filling valve with sealing washer

Pack of 1.



Description	Nominal volume ml	Cat. No.
for Dispensette® III, Dispensette® Organic	0.5, 1, 2, 5, 10	6697
for Dispensette® III, Dispensette® Organic	25, 50, 100	6698

Filling valve with olive-shaped nozzle made of PEEK

For frequent autoclaving with the filling tube mounted, this filling valve with tube nozzle is recommended. PEEK has limited chemical resistance!
 Pack of 1.



Description	Nominal volume ml	Cat. No.
for Dispensette® III, Dispensette® Organic	0.5, 1, 2, 5, 10	6637
for Dispensette® III, Dispensette® Organic	25, 50, 100	6638

Seals

PTFE. Spare seals for discharge tube, SafetyPrime™ and filling valve.
 Pack of 5 each type.

Cat. No. **6696**



Seal for valve block

PTFE. For highly volatile reagents.
 Pack of 1.

Cat. No. **7044 86**



Air vent cap for micro filter with Luer-cone

PP. Air vent cap and PTFE-sealing ring.
 Pack of 1 each.

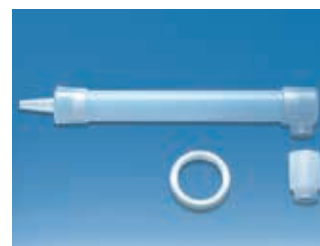
Cat. No. **7044 95**



Drying tube

Drying tube and seal, without drying agent. Pack of 1.

Cat. No. **7079 30**



Remote Dispensing System for Drum Dispensing

for Dispensette® III and Dispensette® Organic

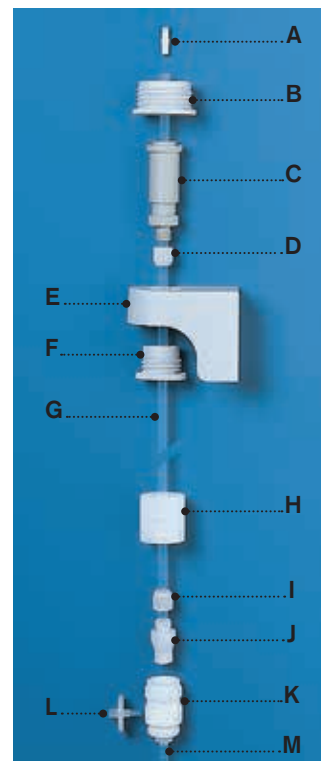
- Dispense accurate volumes directly from drums and bulk refills
- The Dispensette® can be mounted on a wall, a ring stand or on lab furniture
- A filter in the drum adapter minimizes risk of contaminating high-purity reagents when air is drawn in for pressure compensation after dispensing.
- A quick-release connector with integrated valves allows quick changing of the bulk container
- The remote dispensing system allows storage of the drum up to 10 meters (30 feet) away from the Dispensette®. The max. delivery height is approximately 1.2 m.

Standard supply:

without Dispensette®, for drums with 3/4" inner thread, consisting of:

- A) Plug-in adapter, PTFE (only for Dispensettes ≤ 10 ml)
- B) Thread adapter, PP (GL 45/32)
- C) Strain relief, PP
- D) Locking screw, ETFE
- E) Wall mounting unit, PP
- F) Thread adapter, PP (GL 32/28)
- G) Filling tube, FEP, 3 m, outer Ø 7.6 mm
- H) Mounting screw, PTFE
- I) Locking screw, ETFE
- J) Coupling, ETFE, with ball valve
- K) Drum adapter, PTFE, for drums with inner-thread of 3/4", with ball valve (incl. closure cap)
- L) Membrane filter, 3 µm, non-sterile
- M) Filling tube, 0.47 m, outer Ø 6.9 mm

Note!  Observe all Safety Instructions, Operating Exclusions and Limitations of the Dispensette® III and the Dispensette® Organic.



Cat. No. 7042 61

* not suitable for HF and Peroxide

Operating Exclusions

Never use the remote dispensing system:

1. with SafetyPrime™ recirculation valve. It has to be removed before use!
2. for pressurized vessels
3. for liquids attacking borosilicate glass, Al₂O₃-ceramic, PFA, ETFE, FEP or PTFE
4. for Peroxide (due to catalytic reaction)
5. for carbon disulfide (CS₂), due to risk of explosion!

Accessories

Description	Dimensions	Cat. No.
Filling tube, FEP	10 m, outer Ø 7.6 mm	7042 67
Filling tube, FEP	1 m, outer Ø 6.9 mm	7042 69
Filling tube, FEP	1.5 m, outer Ø 6.0 mm	7042 09
Filling tube, FEP	1.5 m, outer Ø 7.6 mm	7042 10
Thread adapter, steel	outer thread 2", inner thread 3/4"	7042 70
Thread adapter, PTFE, for direct mounting of Dispensette® on drum	outer thread 3/4", outer thread GL 32	7042 81
Thread adapter, PTFE, to connect remote dispensing system with drums with GL outer thread	inner thread 3/4", inner thread GL 32	7042 82
Support rod connector for wall mounting unit		7042 68
Shelf clamp for wall mounting unit		7042 72



Support rod connector



Shelf clamp



Dispensette® TA

Trace Analysis

The Dispensette® TA provides outstanding performance for precise volume dispensing of high-purity media for trace analysis. Also suitable for HF with platinum-iridium valve spring.

The components of the fluid path are constructed of the highest purity materials, such as PFA, PTFE and sapphire. Depending on application, either platinum-iridium or tantalum valve springs can be chosen. The volume range is from 1 to 10 ml. Especially well suited for dispensing acids, bases and hydrogen peroxide. Trace metal content of dispensed liquid is generally in the low ppb range, or, depending on application, even in the ppt range.



Use and Handling



Replaceable dispensing cartridge

If the piston seal is worn after an extended period of use, the entire dispensing cartridge can easily be replaced without tools by the user. The cartridge is fully adjusted at the factory, and delivered with a performance certificate. No calibration is required after replacement.



Serial dispensing

For easy serial dispensing, an optional flexible discharge tube with textured safety handle (not approved for HF) permits fast and precise dispensing, even into narrow test tubes. Full functionality of the SafetyPrime™ recirculation valve and the safety discharge system is maintained after installation.

General features of the Dispensette® TA bottle-top dispenser

- Plastics in contact with media consist of high-purity materials such as PTFE, ETFE, FEP, and PFA. The purest sapphire is used for replaceable valves. Depending on the application, platinum-iridium or tantalum are available as spring materials.
- A field-tested cleaning process before use in trace analysis is described in the operating manual.
- If contamination of the bottle contents must be avoided, we recommend using the device without the SafetyPrime™ recirculation valve.
- The 45 mm standard thread plus the included adapters fit most common lab bottles.
- The valve block can be rotated 360° so that the bottle label always faces the user for safety.
- Telescoping filling tube adjusts to different bottle sizes.
- Easy disassembly for replacement of the dispensing cartridge.

Parts in contact with medium

Various fluoroplastics (ETFE, FEP, PFA, PTFE), Al₂O₃ sapphire and platinum-iridium or tantalum, depending on design.

Operating limits

Vapor pressure max. 600 mbar
viscosity max. 500 mm²/s
temperature max. 40 °C
density max. 3.8 g/cm³

Recommended application range

Dispensing medium	Valve spring: Pt - Ir	Valve spring: Ta
Acetic acid	+	+
Ammonia solution	+	+
Bromine	+	+
Hydrochloric acid	+	+
Hydrofluoric acid*	+	-
Hydrogen peroxide	-	+
Nitric acid	+	+
Perchloric acid	+	+
Phosphoric acid	+	+
Sodium hydroxide, 30%	+	-
Sulfuric acid	+	+
Water	+	+

+ suitable - not suitable

* Hydrofluoric acid reacts slightly with sapphire resulting in mildly elevated aluminum values. To reduce these values we recommend discarding 3-5 dispensings of 2 ml each before performing the analysis.

The above recommendations reflect testing completed prior to publication. Always follow instructions in the operating manual of the instrument as well as the reagent manufacturer's specifications. Should you require information on chemicals not listed, please feel free to contact BRAND. Status as of: 0713/2



Ordering Data

Dispensette® TA, Analog-adjustable

Items supplied:

Each Dispensette® TA bottle-top dispenser has DE-M marking and is supplied with performance certificate, telescoping filling tube, SafetyPrime™ recirculation valve and recirculation tube (optional), mounting tool, bottle adapters GL 28/S 28 (ETFE), GL 32 (ETFE) and S 40 (PTFE).

Capacity ml	Valve spring	A* ≤ ± %	μl	CV* ≤ %	μl	without SafetyPrime™ recirculation valve Cat. No.	with SafetyPrime™ recirculation valve Cat. No.
1-10	Platinum-iridium	0.5	50	0.1	10	4740 040	4740 041
1-10	Tantalum	0.5	50	0.1	10	4740 240	4740 241

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-5. DE-M marking.
A = Accuracy, CV = Coefficient of variation

Accessories and Spare Parts

(Other spare parts and accessories can be found in the operating manual.)

SafetyPrime™ recirculation valves

Pack of 1.

Valve spring, Platinum-iridium

Cat. No. 7060 86

Valve spring, Tantalum

Cat. No. 7060 87



Discharge tubes with integrated valve

Tube closure cap PTFE.
Pack of 1.



Nominal volume ml	Valve spring	Length mm	Cat. No.
10	Platinum-iridium	90	7079 55
10	Tantalum	90	7079 56

Flexible discharge tubing

PTFE, coiled, length 800 mm, with safety handle. Must not be used with HF! Pack of 1.



Nominal volume ml	Valve spring	Cat. No.
10	Platinum-iridium	7079 45
10	Tantalum	7079 46

Telescoping filling tubes

FEP. Adjusts to various bottle heights. Pack of 1.

Length mm	Cat. No.
70-140	7042 02
125-240	7042 03
195-350	7042 08
250-480	7042 01



Filling valve with sealing washer

Pack of 1.

Cat. No. 6622



Dispensing cartridge with safety ring

Nominal volume 10 ml, calibrated, incl. quality certificate. Pack of 1.

Cat. No. 7075 42



Bottle Stand

PP. Full plastic construction – suitable for use in aggressive environment (e.g., acid fumes in the hood). Support rod 325 mm, base plate 220 x 160 mm, weight 1130 g. Pack of 1.

Cat. No. 7042 75



seripettor®
seripettor® pro

seripettor® and seripettor® pro are innovative bottle-top dispensers from BRAND with a special design. They provide a cost-effective alternative to high-end dispensers for routine laboratory use.



seripettor®
Bottle-top Dispenser



Models

Two models, seripettor® and seripettor® pro, are available to simplify your routine dispensing operations. These dispensers will serve in a wide variety of applications – when dispensing buffer solutions, culture media, vitamin solutions, acids, bases, saline solutions or many polar solvents.

Even special cases can be managed; for example, the seripettor® bottle-top dispenser can handle agar culture media up to a max. of 60 °C.

■ Operating range: seripettor®

– Aqueous solutions

Routinely used biological buffer solutions and detergents, antifoaming agents, culture media, vitamin solutions and so on can be dispensed. Hydrogen peroxide can also be dispensed.

Agar culture media can be dispensed at up to a max. of 60 °C.

– Acids

Weak, dilute or non-oxidizing acids can be dispensed.

– Alkaline solutions

The components of the instrument are compatible with alkaline solutions, such as NaOH, KOH and ammonia.

– Polar solvents

e.g., polar solvents such as ethanol, methanol, acetylacetone, etc.



■ Operating range: seripettor® pro

The seripettor® pro bottle-top dispenser extends the operating range to include the dispensing of

- acids such as concentrated HCl
- polar solvents such as acetone
- UV-sensitive reagents

Information on use with your specific media can be found in the guidelines for dispenser selection on page 36, or ask BRAND.

Use and Handling



One-handed operation

For dispensing, press down gently on the piston. The automatic lifting action of a spring pushes the piston up. This automatically fills the dispensing cartridge.



Serial dispensing

The optional flexible discharge tube with safety handle makes it easier to dispense in long series (it connects to the valve block with an adapter).



Dispensing sterile liquids

1. Mount the valve block with filling tube onto the bottle and cover the valve block with cap. Affix the autoclavable sterile membrane filter (0.2 µm) laterally and autoclave at 121 °C.
2. On a clean-bench (sterile hood), remove the cap from the valve block, screw in a new sterile dispensing cartridge and mount the pump assembly. You're ready to dispense!



A Closer Look...

The design of the seripettor® bottle-top dispenser makes it possible for the user to replace any functional parts when needed, quickly and easily without the use of tools. Cleaning and maintenance work is reduced to a minimum.



Replaceable dispensing cartridge

If the dispenser's piston seal becomes worn, it is easy and inexpensive to replace. One spare cartridge included free.

Cap for discharge tube

Stopper cap or screw cap (depending on the model).



Pump assembly with lifting spring

The automatic lifting action of a spring pushes the piston up. This fills the dispensing cartridge.

Volume settings

Scalloped track allow for quick and exact setting of desired volume. The selected volume can be easily read.



Valve block

Valve block (GL 45) and included adapters (GL 32 and S 40) match the threads of the most common reagent bottles. (See page 26 for an overview of available bottle adapters.)

Materials of construction


	seripettor®	seripettor® pro
Pump assembly	PC	PPO/PEI (for UV protection)
Lifting spring	spring steel	Hastalloy (stainless)
Dispensing cartridge*	PE/PP	PE/PP
Valve block*	PP	PP
Valves*	PP/EPDM	ETFE/borosilicate glass/Al ₂ O ₃ /Pt-Ir
Discharge tube*	FEP	PTFE/ETFE/FEP/PFA/borosilicate glass/Al ₂ O ₃ /Pt-Ir
Filling tube*	PP	Telescoping filling tube, FEP/PTFE
Cap for discharge tube*	Stopper cap, PP	Screw cap, PP



* parts in contact with the media

Dispenser Selection Chart

Reagent	seripettor®	seripettor® pro	Reagent	seripettor®	seripettor® pro	Reagent	seripettor®	seripettor® pro
Acetaldehyde		+	Calcium chloride	+	+	Monochloroacetic acid		+
Acetic acid, 5%	+	+	Calcium hydroxide	+	+	Nitric acid, 10%		+
Acetic acid, 96%		+	Calcium hypochlorite		+	Oxalic acid	+	+
Acetic acid (glacial), 100%		+	Chloroacetaldehyde, 45%		+	Perchloric acid		+
Acetone		+	Chloroacetic acid		+	Phenol		+
Acetonitrile		+	Chromic acid, 50%		+	Phosphoric acid, 85%		+
Acetophenone	+		Copper sulfate	+	+	Piperidine		+
Acetylacetone	+	+	Cumene (Isopropyl benzene)		+	Potassium chloride	+	+
Acrylic acid		+	Diethylene glycol	+	+	Potassium dichromate	+	+
Acrylonitrile		+	Dimethyl sulfoxide (DMSO)		+	Potassium hydroxide	+	+
Adipic acid	+	+	Dimethylaniline		+	Potassium hydroxide in ethanol	+	+
Agar (60 °C)	+		Ethanol	+	+	Potassium permanganate	+	+
Allyl alcohol	+	+	Formaldehyde, 40%	+	+	Propionic acid	+	+
Aluminium chloride	+	+	Formamide	+	+	Propylene glycol (Propanediol)	+	+
Amino acids	+	+	Formic acid, 100%		+	Pyridine		+
Ammonia, 30%	+	+	Glycerol	+	+	Pyruvic acid	+	+
Ammonium chloride	+	+	Glycol (Ethylene glycol)	+	+	Salicylaldehyde		+
Ammonium fluoride	+	+	Glycolic acid, 50%	+	+	Salicylic acid	+	+
Ammonium sulfate	+	+	Hexanoic acid	+	+	Silver acetate	+	+
Amyl alcohol (Pentanol)	+	+	Hexanol		+	Silver nitrate	+	+
n-Amyl acetate		+	Hydriodic acid	+	+	Sodium acetate	+	+
Aniline		+	Hydrobromic acid		+	Sodium chloride	+	+
Barium chloride	+	+	Hydrochloric acid, 37%		+	Sodium dichromate	+	+
Benzaldehyde		+	Hydrogen peroxide, 35%	+		Sodium fluoride	+	+
Benzyl alcohol		+	Isoamyl alcohol		+	Sodium hydroxide, 30%	+	+
Benzylamine		+	Isobutanol	+	+	Sodium hypochlorite 20% (active chlorine approx. 10%)		+
Benzylchloride		+	Isopropanol (2-Propanol)	+	+	Sulfuric acid, 10%	+	+
Boric acid, 10%	+	+	Lactic acid	+	+	Tartaric acid		+
Butanediol	+	+	Methanol	+	+	Urea	+	+
1-Butanol		+	Methyl benzoate		+	Zinc chloride, 10%	+	+
Butylamine		+	Methyl ethyl ketone		+	Zinc sulfate, 10%	+	+
n-Butyl acetate		+	Methyl propyl ketone		+			
Calcium carbonate	+	+	Mineral oil (Engine oil)		+			

The above recommendations reflect testing completed prior to publication. Always follow instructions in the operating manual of the instrument as well as the reagent manufacturer's specifications. In addition to these chemicals, a variety of organic and inorganic saline solutions (e.g., biological buffers), biological detergents and media for cell culture can be dispensed. Should you require information on chemicals not listed, please feel free to contact BRAND. Status as of: 0114/9

Note!  seripettor® and seripettor® pro are not suitable for HF. For dispensing HF, we recommend the use of the Dispensette® TA bottle-top dispenser with platinum-iridium valve spring (Cat. No. 4740 041, page 32).

Operating limits	seripettor® 	seripettor® pro 
Vapor pressure	up to 500 mbar	up to 500 mbar
Density	up to 2.2 g/cm ³	up to 2.2 g/cm ³
Temperature	15 to 40 °C	15 to 40 °C
	agar cultures up to 60 °C	
Viscosity	2 ml instrument: 300 mm ² /s	2 ml instrument: 300 mm ² /s
	10 ml instrument: 150 mm ² /s	10 ml instrument: 150 mm ² /s
	25 ml instrument: 75 mm ² /s	25 ml instrument: 75 mm ² /s

Ordering Data

seripettor®

Items supplied:

Each seripettor® bottle-top dispenser is supplied with discharge tube, filling tube, spare dispensing cartridge and PP adapters (GL 45/32 and GL 45/S40).

Volume ml	Subdivision ml	A* ≤ ± %	μl	CV* ≤ %	μl	Cat. No.
0.2 - 2	0.04	1.2	24	0.2	4	4720 120
1 - 10	0.2	1.2	120	0.2	20	4720 140
2.5 - 25	0.5	1.2	300	0.2	50	4720 150



seripettor® pro

Items supplied:

Each seripettor® pro bottle-top dispenser is supplied with discharge tube, filling tube, spare dispensing cartridge, mounting tool and PP adapters (GL 45/32 and GL 45/S40).


Volume ml	Subdivision ml	A* ≤ ± %	μl	CV* ≤ %	μl	Cat. No.
0.2 - 2	0.04	1.2	24	0.2	4	4720 420
1 - 10	0.2	1.2	120	0.2	20	4720 440
2.5 - 25	0.5	1.2	300	0.2	50	4720 450



* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. A = Accuracy, CV = Coefficient of variation

Accessories and Spare Parts

(Other spare parts and accessories can be found in the operating manual.)

Note!  Dispensing cartridges are not autoclavable.

Dispensing cartridges

For seripettor® and seripettor® pro. Non-sterile and sterile. Piston (PE), cylinder (PP).




Description	Pack of	Cat. No.
2 ml, non-sterile	3	7045 00
10 ml, non-sterile	3	7045 02
25 ml, non-sterile	3	7045 04
2 ml, sterile (individually wrapped)	7	7045 07
10 ml, sterile (individually wrapped)	7	7045 06
25 ml, sterile (individually wrapped)	5	7045 08

Flexible discharge tube

For seripettor® and seripettor® pro. PTFE tube, coiled, length approx. 800 mm, with safety handle. Pack of 1.



Nominal volume	Cat. No.
2 + 10 ml	7045 22
25 ml	7045 23

Note!  Not suitable for peroxides.



Pump assembly seripettor®

PC, spring steel lifting spring.
Pack of 1.

Description	Cat. No.
2 ml	7045 41
10 ml	7045 42
25 ml	7045 44



Discharge tube seripettor®

Incl. closure cap and EPDM discharge valve.
Pack of 1.

Description	Cat. No.
Fine tip (2 ml)	7045 18
Standard (10 + 25 ml)	7045 20



Valve set seripettor®

1 filling valve (filling valve body, O-ring) 1 discharge valve, 2 seals.

Cat. No.	6790
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See page 26 for an overview of available **bottle adapters**.



Pump assembly seripettor® pro

PPO. PEI (UV protection). Hastaloy (stainless) lifting spring.
Pack of 1.

Description	Cat. No.
2 ml	7045 51
10 ml	7045 48
25 ml	7045 49



Discharge tube seripettor® pro

With integrated valve with seal.
Pack of 1.

Description	Cat. No.
2 ml	7079 15
10 ml	7079 16
25 ml	7079 18

Discharge tube adapters are ordered separately.



Filling valve seripettor® pro

Filling valve with seal.
Pack of 1.

Description	Cat. No.
2 + 10 ml	6697
25 ml	6698

Filling valves are ordered separately.



(1) Adapter for discharge tube seripettor® pro

PP. With seal.
Pack of 1.

Cat. No.	6208
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(2) Adapter for filling valve seripettor® pro

PP. With seal.
Pack of 1.

Cat. No.	6707
----------	------

Filling tubes seripettor®

PP. Autoclavable design with additional O-rings.

Length mm	Pack of	Cat. No.
250	2	7045 32
500	2	7045 34
250, with O-ring	1	7045 36
500, with O-ring	1	7045 38



Telescopic filling tubes seripettor® pro

FEP. Adjusts to various bottle heights.
Pack of 1.

Nominal volume ml	Outer Ø mm	Length mm	Cat. No.
2 + 10	6	70-140	7042 02
		125-240	7042 03
		195-350	7042 08
		250-480	7042 01
25	7.6	170-330	7042 04
		250-480	7042 05



Titrette® – the first bottle-top burette to satisfy Class A error limits for glass burettes! It is also remarkable for its easy dropwise titration, compact design, ultra-high precision, replaceable piston/cylinder assembly and an optional PC interface. With the Titrette® bottle-top burette, you can titrate quickly and reliably with the highest precision, even in close quarters, with no power hookup needed – in the lab, in production, or in the field.



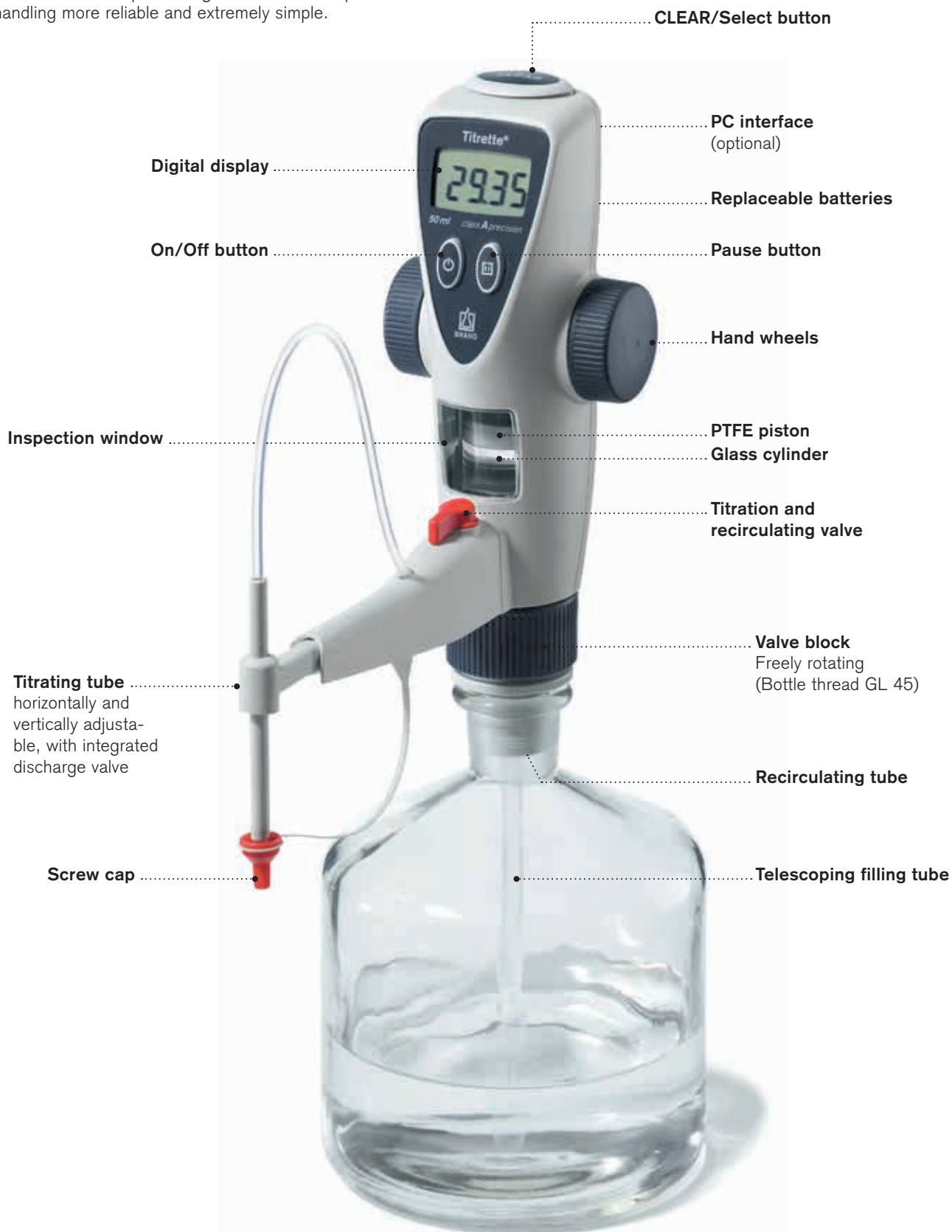
Titrette®

Bottle-top Burette



A Closer Look...

The control elements of the Titrette® bottle-top burette have an intuitive layout. Separate buttons for On/Off and Pause; CLEAR button allows user to reset the display and select functions. Easy-grip hand wheel action and smooth precision gears for fast or drop-wise titration make handling more reliable and extremely simple.



Use and Handling



Smooth operation

No switching is needed to change between filling and titration. The dispenser automatically detects whether you are filling or titrating by the direction of hand wheel rotation. With the optimized gear ratio, you can fill the instrument quickly and still titrate drop-wise very slowly and sensitively. The drop size for the 10 ml instrument is approx. 20 µl, and for the 25 and 50 ml instruments approx. 30 µl.

User serviceable

The dispenser is quickly and easily dismantled within a few minutes – for cleaning, to replace the piston/cylinder, or to replace the batteries. Now you can carry out maintenance conveniently and easily in the lab, and the instrument is ready to use again in minutes.

Light-weight and compact

The compact and lightweight design ensures good stability. The titrating tube can be adjusted horizontally and vertically. This provides flexibility when positioning the instrument, e.g., when using a magnetic stirrer or different bottle sizes.



Light protection

For protection of light-sensitive media, the clear inspection windows can be replaced with the amber colored windows (included).



Useful extras

The instrument is equipped with four helpful additional electronic functions:

Adjustment with Easy Calibration

With Easy Calibration technology, the instrument can be adjusted quickly and easily – with no tools! A small 'CAL' icon in the display indicates that the factory setting has been changed.

Calibration schedule

The next calibration date can be stored under 'GLP', and called up each time the instrument is turned on. The GLP and the year and month of the scheduled date are then shown continuously.

Save power with Auto Power Off

The instrument switches off automatically after longer periods of inactivity. The current display value is stored, and returned to the display after the power is switched on again manually. Under 'APO' (Auto Power Off), the inactivity period until automatic power off can be set from 1 to 30 minutes.

Changing decimal place settings

For use as a micro-burette, the titrated volume display can be switched from 2 to 3 decimal places under 'dP' (decimal point). Above 20.00 ml, the display automatically switches to 2 decimal places.



PC interface (optional)

The instrument is available with an optional RS 232 communications interface. Advantages compared to the standard configuration:

- The titration results are automatically transmitted to the PC by double-clicking on the CLEAR key. This eliminates transcription errors while recording primary data, and complies with an important requirement of GLP.
- With each data transfer, the burette sends the titrated volume, the serial number of the instrument, the nominal volume and the adjustment value, as well as the next scheduled calibration date. Thus, all raw data is collected and displayed together with actual date/time stamp from the PC.

The transmitted data is recognized as keyboard inputs by the PC. This universal input format ensures that the instrument is compatible with all PC applications that accept keyboard inputs.

To connect the instrument to a USB interface, simply use a standard USB/RS 232 adapter.

**The instrument can be used for the following titration media (maximum concentration 1 mol/l):****Range of application**

Acetic acid	Potassium bromide bromate solution
Alcoholic potassium hydroxide solution	Potassium dichromate solution
Ammonium iron (II) sulfate solution	Potassium hydroxide solution
Ammonium thiocyanate solution	Potassium iodate solution
Barium chloride solution	Potassium permanganate solution*
Bromide bromate solution	Potassium thiocyanate solution
Cerium (IV) sulfate solution	Silver nitrate solution*
EDTA solution	Sodium arsenite solution
Hydrochloric acid	Sodium carbonate solution
Hydrochloric acid in acetone	Sodium chloride solution
Iodide iodate solution*	Sodium hydroxide solution
Iodine solution*	Sodium nitrite solution
Iron (II) sulfate solution	Sodium thiosulfate solution
Nitric acid	Sulfuric acid
Oxalic acid solution	Tetra-n-butylammonium hydroxide solution
Perchloric acid	Triethanolamine in acetone*
Perchloric acid in glacial acetic acid	Zinc sulfate solution
Potassium bromate solution	

* Use light shield inspection window

The above recommendations reflect testing completed prior to publication. Always follow instructions in the operating manual of the instrument as well as the reagent manufacturer's specifications. Should you require information on chemicals not listed, please feel free to contact BRAND. Status as of: 0713/4

When the instrument is properly handled, dispensed liquid will only come into contact with the following chemically resistant materials: borosilicate glass, Al₂O₃, ETFE, PFA, FEP, PTFE, platinum-iridium; PP (screw cap).

Limitations of use

Chlorinated and fluorinated hydrocarbons or chemical combinations which form deposits may make the piston difficult to move or may cause jamming.

Compatibility of the instrument for a special application (e.g., trace material analysis) must be checked by the user. For additional information, please contact the manufacturer.

The instrument is not autoclavable!

Operating limits

This instrument is designed for titrating liquids, observing the following physical limits:

- +15 °C to +40 °C (59 °F to 104 °F) of instrument and reagent
- Vapor pressure up to 500 mbar
- Viscosity up to 500 mm²/s
- Altitude: maximum 3000 m above sea level
- Relative humidity: 20% to 90%

Comparison of error limits


Volume ml	Partial volume ml	Titrette® bottle-top burette				Bottle-top burettes according to DIN EN ISO 8655-3				Glass burettes Class A acc. to DIN EN ISO 385 and ASTM
		A* ≤ ± %	µl	CV* ≤ %	µl	A* ≤ ± %	µl	CV* ≤ %	µl	EL** ± µl
10 <i>NEW!</i>	10	0.10	10	0.05	5	0.3	30	0.1	10	20
	5	0.20	10	0.10	5	0.6	30	0.2	10	20
	1	1.00	10	0.50	5	3	30	1	10	20
25	25	0.07	18	0.025	6	0.2	50	0.1	25	30
	12.5	0.14	18	0.05	6	0.4	50	0.2	25	30
	2.5	0.70	18	0.25	6	2	50	1	25	30
50	50	0.06	30	0.02	10	0.2	100	0.1	50	50
	25	0.12	30	0.04	10	0.4	100	0.2	50	50
	5	0.60	30	0.20	10	2	100	1	50	50

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-3. DE-M marking. A = Accuracy, CV = Coefficient of variation

** Error limit: EL = A + 2CV, according to DIN EN ISO 8655-6 Annex B

The titration volume is displayed in steps of 1 µl at instruments with 10 ml and 25 ml size and in steps of 2 µl for 50 ml size instruments. For titration volumes above 20 ml the display will automatically switch to steps of 10 µl.

The error limits for Class A burettes according to DIN EN ISO 385 are met.

Note!  If you need an official certification which confirms the error limits that are much stricter than those of DIN EN ISO 8655-3, we recommend a calibration certificate from an accredited calibration laboratory (e.g., the DAkkS laboratory at BRAND).

Ordering Data


Titrette®

Items supplied:

Each Titrette® bottle-top burette has DE-M marking and is supplied with performance certificate, telescoping filling tube (170 - 330 mm), recirculation tube, 2 batteries (AAA/UM4/LR03), 3 PP bottle adapters (GL 45/32, GL 45/S 40, GL 32/NS 29/32), 2 amber colored light shield inspection windows.

Volume	Standard Cat. No.	with RS 232 interface* Cat. No.
10 ml <i>NEW!</i>	4760 141	4760 241
25 ml	4760 151	4760 251
50 ml	4760 161	4760 261

* Additionally included: 2 m interface cable (Sub-D plug connector, 9-pin), one CD (driver software and open RS232 communication protocol). The CD also includes an example application in XLS-file format, as well as a special operating manual.

Note!  When ordering instruments with DAkkS calibration certificates, the prefix 'DAkkS' must be added to the order number, e.g., DAkkS 4760 161.

BRAND also offers calibration service at the factory lab. For more information, please see page 326.



Accessories and Spare Parts

(Other spare parts and accessories can be found in the operating manual.)



Titration tube

With screw cap and integrated discharge and recirculation valve. Pack of 1.

for volume ml	Cat. No.
10	7075 25
25 + 50	7075 29*

* Manufactured from Jan. 2012 onwards (serial number 01K)



Telescoping filling tubes

FEP.
Pack of 1.

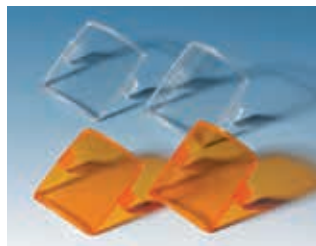
Length mm	Cat. No.
170 - 330	7042 04
250 - 480	7042 05



Filling valve

With olive-shaped nozzle and sealing ring. Pack of 1.

Cat. No.	6636
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Inspection window

1 set colorless and 1 set amber colored (light shield).

Cat. No.	6783
----------	------



Piston

Pack of 1.

for volume ml	Cat. No.
10	7075 31
25	7075 30
50	7075 32



Dispensing cylinder with valve block

Pack of 1.

for volume ml	Cat. No.
10	7075 33
25	7075 35*
50	7075 37*

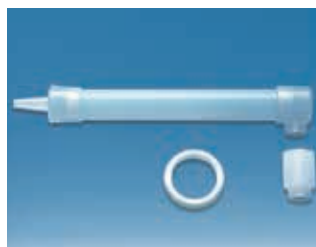
* Manufactured from Jan. 2012 onwards (serial number 01K)



Bottle Stand

PP. Full plastic construction. Support rod 325 mm, base plate 220 x 160 mm, weight 1130 g. Pack of 1.

Cat. No.	7042 75
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Drying tube

Drying tube and seal, without drying agent. Pack of 1.

Cat. No.	7079 30
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Threaded bottles, coated and uncoated, see page 299.



See page 26 for an overview of available **bottle adapters**.

BRAND offers the ideal pipette for every hand:

- Transferpette® S with the central pipetting button and one-handed volume setting
- Transferpette® with the pipetting key on the side

- Transferpette® electronic with motor drive

BRAND has been developing and manufacturing single-channel and multichannel piston-operated pipettes for more than 25 years. Special attention is always paid to optimum ergonomics and reduction of injuries caused by prolonged strain (such as Repetitive Strain Injury Syndrome, RSI).



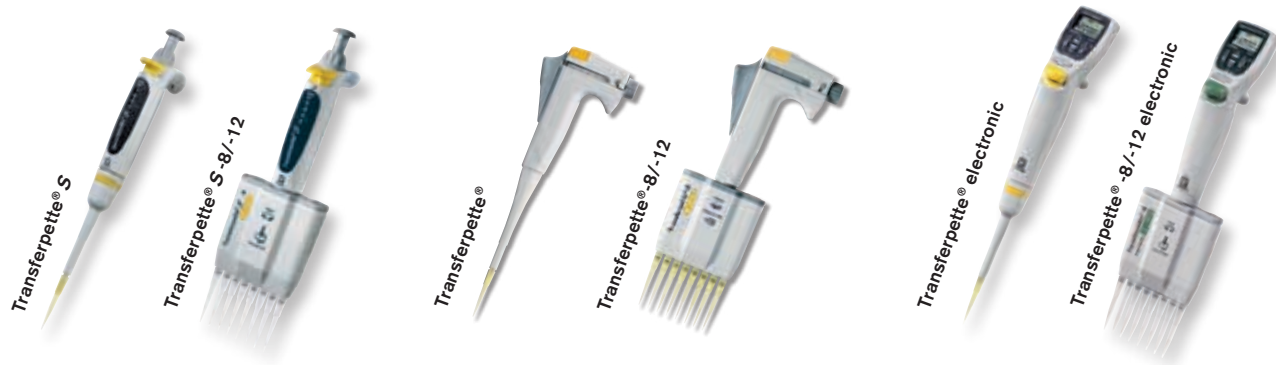
Transferpette®

Pipetting System



Pipetting – A Routine Laboratory Procedure

Pipetting is one of the most frequent tasks in the laboratory. The right choice of pipette is critical to performing this repetitive task accurately and strain-free.



What are the special features to look for?

■ Pipetting key

To fit your preferred working style, choose either the Transferpette® pipettes with the pipetting key on the side or the Transferpette® S pipettes with the central pipetting button. The Transferpette® electronic pipettes only need a light tap on the pipetting button to activate the piston.

■ Tip ejector

All Transferpette® models have separate tip ejection controls. This reduces the risk of accidental tip ejection.

■ Easy Calibration

Piston-operated pipettes are calibrated in compliance with the monitoring of measuring instruments according to EN ISO 8655. All Transferpette® models feature the Easy Calibration Technique that allows adjustment without tools (please see page 324).

■ Autoclavability

No compromises! Depending on the model, either the complete pipette shaft (Transferpette®, Transferpette® electronic) or the entire pipette (Transferpette® S) can be autoclaved at 121 °C (2 bar), according to DIN EN 285.

■ Tip cone

Pipette and pipette tip form a single system. Both components have been developed by BRAND and are perfectly matched. This ensures an optimum fit between the Transferpette® pipettes and the pipette tips and filter tips from BRAND.

For your convenience, the tip cone is also designed to accept tips made by other leading manufacturers.

Which Transferpette® is right for you?

	Transferpette® S	Transferpette®	Transferpette® electronic
Side pipetting key		✓	
Central pipetting button	✓		✓
Separate tip ejection	✓	✓	✓
Easy Calibration Technique	✓	✓	✓
Entire shaft is autoclavable	✓	✓	✓
Entire pipette is autoclavable	✓		
Corrosion-resistant piston	✓	✓	✓
Universal tip cone	✓	✓	✓
Volume display	4-position	3/4-position*	4-position
Volume range	0.1 µl - 10 ml	0.1 µl - 5 ml	0.5 µl - 5 ml
Motor driven			✓

* depending on volume range



Transferpette® S

Single and Multichannel Pipettes

The performance standard among pipettes with a central pipetting button: Transferpette® S pipettes from BRAND.

Transferpette® S models are the product of intensive ergonomic and operational studies and the application of modern innovative materials. The Transferpette® S models are the perfect manual pipettes for demanding laboratory applications for scientists who prefer the central pipetting button.

The Transferpette® S pipettes provide all of the features required by users working in the life sciences field: robust, one-handed operation, completely autoclavable, high precision and Easy Calibration technique for lasting reliability.

Transferpette® S Solutions for Science



Models

Lightweight – robust – low force:

The piston-operated pipette Transferpette® S provides maximum versatility and optimum quality over the entire volume range.

There are 10 single-channel pipettes with adjustable volume and 8 single-channel pipettes with fixed volume available in the 0.1 µl to 10 ml range.

There are 5 different multichannel pipettes available in the 0.5 to 300 µl volume range.

Features

- Large, central pipetting button and separate ejection function
- True one-handed operation for both right- and left-handers
- The Transferpette® S is completely autoclavable at 121 °C (2 bar), acc. DIN EN 285.
- Volume-change protection
- 4-position volume display, always clearly visible
- Transferpette® S features Easy Calibration technique – readjustment without special tools (please see page 324 for further details). Clearly visible external flag indicates changes from factory settings.
- Short stroke of only 12.5 mm to reduce the risk of RSI (Repetitive Strain Injury)
- Corrosion-resistant piston and ejector
- Color-coded volume range
- Transferpette® S 0.1-1 µl offers maximum precision for molecular biology work, especially when pipetting enzymes.
- UV resistant
- CE-**IVD**-compliant

Transferpette® S

Transferpette® S-8



Optimal performance will be achieved with the use of genuine premium tips from BRAND. **Pipette and filter tips**, see pages 68-82.

A Closer Look...

A central pipetting button, one-handed operation, precise 4-position volume settings and a volume display that can be easily read by both right- and left-handed operators are only a few examples of the attention to detail in the design of the Transferpette® S pipette.

Pipetting button

The centrally mounted, large pipetting button allows uniform smooth movement of the piston.

Ejection button

Ergonomically arranged, with color code according to volume range

Volume-change protection

A lock prevents unintended volume adjustments.

4-position volume display

Maximum precision, always easy to read with an integrated lens.

Color code

Color indicates volume range

Slim pipette shaft

The slim shaft allows pipetting into narrow vessels, without removing the tip ejector.

Tip cone

Due to the optimized standard design, pipette tips from BRAND and other manufacturers' tips can be used.

Volume adjustment

True one-handed volume adjustment for right- and left-handed operators – even with gloves.

Easy Calibration Technique

Changes from factory settings are externally visible! (For more information, please see page 324.)

Finger rest

The ergonomically designed finger rest takes the load off the hand. You don't need to grip the pipette tightly, so even prolonged pipetting operations can be completed with less fatigue.

Completely autoclavable

The entire instrument can be autoclaved at 121 °C for maximum protection against contamination.



The freely rotating stand provides safe storage for Transferpette® S and Transferpette® S-8/-12 pipettes.



Ordering Data

Items supplied:

Each Transferpette® S adjustable and fixed volume pipette has DE-M marking and is supplied with performance certificate, shelf/rack mount and silicone oil.

Transferpette® S, adjustable volume

Capacity, µl (color-coded)	Description	A* ≤ ± % µl	CV* ≤ % µl	Subdivision µl	Cat. No.
● 0.1 - 1	D-1	2 0.02	1.2 0.012	0.001	7047 68
● 0.1 - 2.5	D-2.5	1.4 0.035	0.7 0.018	0.002	7047 69
● 0.5 - 10	D-10	1 0.1	0.5 0.05	0.01	7047 70
● 2 - 20	D-20**	0.8 0.16	0.4 0.08	0.02	7047 72
● 5 - 50	D-50	0.8 0.4	0.3 0.15	0.05	7047 73
● 10 - 100	D-100	0.6 0.6	0.2 0.2	0.1	7047 74
● 20 - 200	D-200**	0.6 1.2	0.2 0.4	0.2	7047 78
● 100 - 1000	D-1000	0.6 6	0.2 2	1	7047 80
● 500 - 5000	D-5000	0.6 30	0.2 10	5	7047 82
● 1000 - 10000	D-10000	0.6 60	0.2 20	10	7047 84



Transferpette® S, fixed volume

Capacity, µl (color-coded)	Description	A* ≤ ± % µl	CV* ≤ % µl	Cat. No.
● 10	F-10	1 0.1	0.5 0.05	7047 08
● 20	F-20**	0.8 0.16	0.4 0.08	7047 16
● 25	F-25	0.8 0.2	0.4 0.1	7047 20
● 50	F-50	0.8 0.4	0.4 0.2	7047 28
● 100	F-100	0.6 0.6	0.2 0.2	7047 38
● 200	F-200**	0.6 1.2	0.2 0.4	7047 44
● 500	F-500	0.6 3	0.2 1	7047 54
● 1000	F-1000	0.6 6	0.2 2	7047 62

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-2. DE-M marking. A = Accuracy, CV = Coefficient of variation

** For use only with 2-200 µl pipette tips



Accessories

(Other accessories for Transferpette® S pipettes can be found on page 52 and in the operating manual.)

Starter Kit

Items supplied: 3 Transferpette® S adjustable volume pipettes, 3 x TipBox (filled), 3 shelf/rack mounts.

Type	The kit includes the following Transferpette® S models	Cat. No.
MICRO	D-1, D-10, D-100	7047 90
MIDI	D-20, D-200, D-1000	7047 91
MACRO	D-1000, D-5000, D-10000	7047 92
STANDARD	D-10, D-100, D-1000	7047 93

Note! When ordering instruments with DAKkS calibration certificates, the prefix 'DAKkS' must be added to the order number, e.g., DAKkS 7047 28.

BRAND also offers calibration service at the factory lab. For more information, please see page 326.

A Closer Look...

Easy Handling – a particular advantage of the new multichannel pipette is the easy operation, e.g., when performing serial pipetting of immunological assays, while making serial dilutions or when filling 96-well plates for cell cultures.



Pipetting button

The centrally mounted, large pipetting button allows uniform smooth movement of the piston.

Ejection button

Ergonomically arranged, with color code according to volume range

Volume-change protection

A lock prevents unintended volume adjustments.

4-position volume display

Maximum precision, always easy to read with an integrated lens.

Color code

Manifold has volume-range color code for easy visual confirmation while pipetting

Volume adjustment

True one-handed volume adjustment for right- and left-handed operators – even with gloves.

Easy Calibration Technique

Changes from factory settings are externally visible! (For more information, please see page 324.)

Finger rest

The ergonomically designed finger rest takes the load off the hand. You don't need to grip the pipette tightly, so even prolonged pipetting operations can be completed with less fatigue.

Completely autoclavable

The entire instrument can be autoclaved at 121 °C for maximum protection against contamination.

Manifold

Can be freely rotated by 360° in either direction.



Stepped surface Sealing ring of FKM

Shafts and sealing rings are made of resilient FKM material, and are designed so that only minimal attachment force is needed for solid and parallel tip seating. The stepped design allows the ejection force to be sequentially distributed to the tips within fractions of a second and thus drastically reduces the force required.



Individual shafts with seals which can be easily unscrewed with only a supplied simple gripping tool. Tip cones and seals can now be easily cleaned or replaced. This patented procedure eliminates the expense of long service outages, providing long service life and low operating costs.



Ordering Data

Items supplied:

Each Transferpette® S-8/-12 pipette has DE-M marking and is supplied with performance certificate, 2 x TipBox, filled with pipette tips from BRAND, 1 shelf/rack mount, 1 reagent reservoir, 1 mounting tool, silicone oil and 1 set of sealing rings made of FKM.

Transferpette® S-8

Capacity, µl (color-coded)	Description	A* ≤ ± %	CV* ≤ %	Subdivision µl	Cat. No.
● 0.5 - 10	M8-10	1.6	1.0	0.01	7037 00
● 5 - 50	M8-50	0.8	0.4	0.05	7037 06
● 10 - 100	M8-100	0.8	0.3	0.1	7037 08
● 20 - 200	M8-200	0.8	0.3	0.2	7037 10
● 30 - 300	M8-300	0.6	0.3	0.5	7037 12

Transferpette® S-12

Capacity, µl (color-coded)	Description	A* ≤ ± %	CV* ≤ %	Subdivision µl	Cat. No.
● 0.5 - 10	M12-10	1.6	1.0	0.01	7037 20
● 5 - 50	M12-50	0.8	0.4	0.05	7037 26
● 10 - 100	M12-100	0.8	0.3	0.1	7037 28
● 20 - 200	M12-200	0.8	0.3	0.2	7037 30
● 30 - 300	M12-300	0.6	0.3	0.5	7037 32

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-2. DE-M marking.
A = Accuracy, CV = Coefficient of variation

Accessories

Transferpette® S · Transferpette® S-8/-12

(Other accessories and spare parts can be found in the operating manual.)



Individual stands please see pages 57, 59 and 64.

Bench-top rack

For 6 Transferpette® S or Transferpette® S-8/-12 pipettes. Pack of 1.

Cat. No. **7048 05**



Shelf/rack mount

Shelf/rack mount for all Transferpette® S single instruments. Pack of 1.

Cat. No. **7048 10**

Filter

For all Transferpette® S single-channel pipettes 0.5-5 ml. Pack of 25.

Cat. No. **7046 52**



For Transferpette® S 1-10 ml pipettes. Pack of 25.

Cat. No. **7046 53**



Transferpette®

Single and Multichannel Pipettes

The Transferpette® pipette from BRAND is designed for routine lab and research applications in a shape that is adapted to the anatomy of the human hand. The special handle shape with the side pipetting key allows the Transferpette® pipette to lie loosely and lightly in your hand.

The Transferpette® models are particularly well suited for prolonged pipetting, or for anyone who is susceptible to RSI syndrome due to repetitive laboratory procedures.



Models

Economical – accurate – versatile:

With only 5 instruments you can cover the entire volume range from 0.1 µl to 5 ml. You can choose from 10 models of the adjustable volume Transferpette® pipette and from 12 models of the fixed-volume type.

There are 7 different multichannel pipettes available in the 0.5 to 300 µl volume range.

Features

- Side pipetting key relieves strain; separate ejector function limits errors.
- Pipette shafts/manifold are entirely autoclavable at 121 °C (2 bar), acc. DIN EN 285.
- Transferpette® adjustable volume models and Transferpette®-8/-12 feature Easy Calibration technique – readjustment without special tools (please see page 324 for further details).
- Corrosion-resistant piston and ejector
- Tip ejector caps with color code according volume range.
- Transferpette® 0.1-1 µl offers maximum precision for molecular biology work, especially when pipetting enzymes.
- A variety of pipette stands for optimum storage of the Transferpette® pipette
- UV resistant
- CE-IVD-compliant

Transferpette®



Transferpette®-12



The microliter pipettes Transferpette® 0.1-1 µl, Transferpette® S 0.1-1 µl and Transferpette® S 0.1-2.5 µl can be used to pipette the smallest volumes down to 0.1 µl with the highest precision.

For the instruments 0.1-1 µl, which work exclusively with BRAND nano-cap™ pipette tips, the air cushion is greatly minimized in order to attain the highest precision when pipetting.

The smallest volumes of liquid can be taken up with good visibility, and positioned in a microcentrifuge tube, for example.

A Closer Look...

The Transferpette® pipette is designed to the shape of the human hand for maximum comfort.

Tip ejector cap
Ergonomically arranged, with color code according to volume range

Pipetting key
The side mounted pipetting key reduces hand fatigue, especially when performing serial pipetting operations.

Hand grip
The textured housing ensures a firm grip, and is UV resistant.

Tip cone
The taper is designed to fit pipette tips from BRAND and most other leading manufacturers tips.

Pipette shaft
The slim shaft (autoclavable at 121 °C) makes it possible to pipette in the narrowest vessels without removing the tip ejector.

Volume adjustment
Changing volume is easy without snagging gloves. Detents prevent inadvertent volume changes.



Easy Calibration Technique
Calibration and adjustments according to ISO 9001 and GLP are done within seconds.



Optimal performance will be achieved with the use of genuine premium tips from BRAND.
Pipette and filter tips,
see pages 68-82.





Ordering Data

Transferpette®, adjustable volume

Items supplied:

Each Transferpette® adjustable volume pipette has DE-M marking and is supplied with performance certificate and silicone oil.

Capacity, µl (color-coded)	A* ≤ ± % µl	CV* ≤ % µl	Subdivision µl	Cat. No.
● 0.1 - 1	2 0.02	1.2 0.012	0.005	7041 01
● 0.5 - 10	1 0.1	0.8 0.08	0.05	7041 02
● 2 - 20	0.8 0.16	0.4 0.08	0.1	7041 03
● 2 - 20	0.8 0.16	0.4 0.08	0.1	7041 04
● 5 - 50	0.8 0.4	0.4 0.2	0.1	7041 72
● 10 - 100	0.6 0.6	0.2 0.2	0.1	7041 74
● 20 - 200	0.6 1.2	0.2 0.4	1	7041 78
● 25 - 250	0.6 1.5	0.2 0.5	1	7041 76
● 100 - 1000	0.6 6	0.2 2	1	7041 80
● 500 - 5000	0.6 30	0.2 10	10	7041 82




Transferpette®, fixed volume

Items supplied:

Each Transferpette® Fixed volume pipette has DE-M marking and is supplied with performance certificate, calibration key and silicone oil.

Capacity, µl (color-coded)	A* ≤ ± % µl	CV* ≤ % µl	Cat. No.
● 5	1 0.05	0.8 0.04	7041 06
● 10	1 0.1	0.8 0.08	7041 08
● 20	0.8 0.16	0.4 0.08	7041 16
● 25	0.8 0.2	0.4 0.1	7041 20
● 50	0.8 0.4	0.4 0.2	7041 28
● 100	0.6 0.6	0.2 0.2	7041 38
● 200	0.6 1.2	0.2 0.4	7041 44
● 200	0.6 1.2	0.2 0.4	7041 46
● 250	0.6 1.5	0.2 0.5	7041 48
● 500	0.6 3	0.2 1	7041 54
● 1000	0.6 6	0.2 2	7041 62
● 2000	0.6 12	0.2 4	7041 64

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are within the limits of DIN EN ISO 8655-2. DE-M marking.
A = Accuracy, CV = Coefficient of variation

Note!  When ordering instruments with DAkkS calibration certificates, the prefix 'DAkkS' must be added to the order number, e.g., DAkkS 7041 01.

BRAND also offers calibration service at the factory lab. For more information, please see page 326.

Accessories

(Other accessories and spare parts can be found in the operating manual.)

PipSet Transferpette® adjustable volume

The PipSet contains of three Transferpette® pipettes (0.5-10 µl, 10-100 µl, 100-1000 µl), one bench-top rack and one filled TipBox for each Transferpette® pipette. Pack of 1.

Cat. No. 7041 90



Pipetting keys, colored

For Transferpette® and Transferpette®-8/-12 pipettes. Incl. 2 stickers per key. Pack of 5.

Color	Cat. No.
light green	7040 70
pink	7040 71
blue	7040 72
beige	7040 73
dark gray	7040 74
assorted colors	7040 75



Bench-top rack

Incl. 1 or 2 adapters for Transferpette® pipettes 2 ml or 0.5-5 ml. Pack of 1.



Description	Cat. No.
for 1 x 3 Transferpette® pipettes	7032 03
for 2 x 3 Transferpette® pipettes (round)	7032 08

Wall/rack mount

Pack of 1.

Description	Cat. No.
for 1 x 3 Transferpette® pipettes*	7032 10

* Not suitable for the 0.5-5 ml or 2 ml Transferpette®

Individual stand

For Transferpette® 0.5-5 ml, 2 ml, Transferpette® S and Transferpette® electronic 0.5-5 ml pipettes. Pack of 1.

Cat. No. 7053 86



Filter

For all Transferpette® single-channel pipettes 0.5-5 ml. Pack of 25.

Cat. No. 7046 52



A Closer Look...

The effortless ease of operation and its unique ergonomic shape make working with the Transferpette®-8/-12 piston-operated pipette so comfortable. The use of high-quality materials makes it exceptionally light in weight, while special FKM V-rings and the stepped shape of the ejector significantly reduce the ejection force needed. Your hand remains relaxed and loose, even during a prolonged pipetting operation.

Tip ejector cap

Ergonomically arranged, with color code according to volume range

Pipetting key

The side mounted pipetting key helps to reduce hand fatigue, especially when performing serial pipetting operations.

Hand grip

The textured housing ensures a firm grip, and is UV resistant.

Color code

Manifold has volume-range color code for easy visual confirmation while pipetting

Stepped tip ejector

The stepped tip ejector ensures a tight tip seal with minimal tip ejection force.

Volume adjustment

Changing volumes is easy without snagging gloves. Detents prevents inadvertent volume changes.



Easy Calibration Technique

Calibration and adjustments according to ISO 9001 and GLP are done within seconds.

Manifold

Autoclavable at 121 °C and freely rotated over 360° to adapt to your most comfortable pipetting position.

Tip cone

The taper is designed to fit pipette tips from BRAND and most other leading manufacturers tips.



Individual shafts and seals can easily be replaced in the laboratory.

Ordering Data

Items supplied:

Each Transferpette®-8/-12 pipette has DE-M marking and is supplied with performance certificate, 2 x TipBox, filled with pipette tips from BRAND, 1 stand, silicone oil and 1 set of sealing rings made of FKM.

Transferpette®-8

Capacity, µl (color-coded)	A* ≤ ± % µl	CV* ≤ % µl	Subdivision µl	Cat. No.
● 0.5 - 10	1.6 0.16	1.0 0.1	0.05	7036 00
● 2 - 20	1.0 0.2	0.6 0.12	0.1	7036 02
● 2.5 - 25	1.0 0.25	0.6 0.15	0.1	7036 04
● 5 - 50	0.8 0.4	0.4 0.2	0.1	7036 06
● 10 - 100	0.8 0.8	0.3 0.3	0.1	7036 08
● 20 - 200	0.8 1.6	0.3 0.6	1	7036 10
● 30 - 300	0.6 1.8	0.3 0.9	1	7036 12



Transferpette®-12

Capacity, µl (color-coded)	A* ≤ ± % µl	CV* ≤ % µl	Subdivision µl	Cat. No.
● 0.5 - 10	1.6 0.16	1.0 0.1	0.05	7036 20
● 2 - 20	1.0 0.2	0.6 0.12	0.1	7036 22
● 2.5 - 25	1.0 0.25	0.6 0.15	0.1	7036 24
● 5 - 50	0.8 0.4	0.4 0.2	0.1	7036 26
● 10 - 100	0.8 0.8	0.3 0.3	0.1	7036 28
● 20 - 200	0.8 1.6	0.3 0.6	1	7036 30
● 30 - 300	0.6 1.8	0.3 0.9	1	7036 32

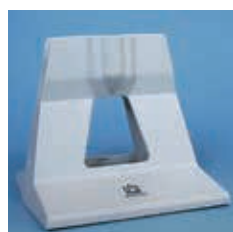


* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are within the limits of DIN EN ISO 8655-2. DE-M marking.

A = Accuracy, CV = Coefficient of variation

Accessories

(Other accessories and spare parts can be found in the operating manual.)



Individual stand

For all Transferpette® multi-channel pipettes.
Pack of 1.

Cat. No. **7034 40**



Reagent reservoir,
PP, non-sterile or sterile,
please see page 67.



Transferpette® electronic

Single and Multichannel Pipettes

The Transferpette® electronic piston-operated pipette combines the widely recognized features of BRAND mechanical pipettes with the advantages of electronic apparatus.

Comfortable design, balanced weight distribution, intuitive software and user-friendly technical documentation were the key objectives in developing the Transferpette® electronic pipette.

TUV Rhineland/Berlin-Brandenburg has confirmed the design as ergonomically sound and easy to use after rigorous field testing. It was the first pipette ever granted such recognition as a comprehensive, ergonomic concept.



Models

Ergonomics – approved and certified.

Transferpette® electronic single channel pipette is available in 5 different models: 0.5-10 µl, 2-20 µl, 20-200 µl, 100-1000 µl and 0.5-5 ml.

The Transferpette®-8/-12 electronic multichannel pipette is available in 5 different models: 0.5-10 µl, 1-20 µl, 5-100 µl, 10-200 µl and 15-300 µl.



Transferpette® electronic



Transferpette®-8 electronic



Features

- **Ergonomic**
 - functional, ergonomic housing design
 - individually adjustable finger rest
- **Easy operation**
 - intuitive menu structure
 - comprehensively illustrated user manual
- **Innovative**
 - Significantly reduced tip attachment and ejection forces using universal tips
- **Resistant**
 - Corrosion-resistant piston and ejector
- **Five convenient programs**
 - (Please see page 62 for details)
 - Pipetting
 - Reverse pipetting
 - Mixing
 - GEL-Electrophoresis
 - Dispensing
- **Ready for use**
 - 4000 pipetting cycles with each battery charge
 - battery refresh function
 - even during recharging
- **CE-IVD-compliant**



Optimal performance will be achieved with the use of genuine premium tips from BRAND. **Pipette and filter tips**, see pages 68-82.

Functions

The Programs



Pipetting (PIP Mode)

The 'standard' program.
The set volume is aspirated by the pipette,
and then discharged.



Mixing of Samples (PIPMix Mode)

Program for mixing of liquids. The sample is
repeatedly aspirated and discharged, and the
number of mixing cycles is displayed.



Reverse Pipetting (revPIP Mode)

Program specially designed for the pipetting
of liquids with a high viscosity, high vapor
pressure or foamy media.



Pipetting with Electrophoresis (GEL Mode)*

Program for the loading of electrophoresis gels**.
The required sample volume is aspirated at the desired,
adjustable speed, and is then discharged very slowly.
The exact volume of liquid discharged is shown in the
display as it is discharged.



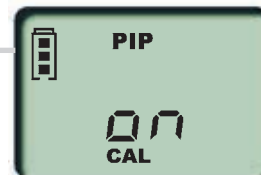
Dispensing (DISP Mode)

A program for the dispensing of liquids in a series
of equal aliquots. A volume that has been aspirated
is dispensed in steps.



Easy Calibration Technique (CAL Mode)

Program for making quick adjustments to the instrument,
without tools. By changing the factory setting, <CAL>
appears automatically in the display (please see page
325 for more information).



Battery-Refresh (batt Mode)

Regeneration function for increased performance and
extending the service life of the batteries. The world's
first microliter pipette with this function.



* The GEL mode is not included in the 1000 µl and 5000 µl single channel pipettes because these volumes are rarely used in electrophoresis.

** Patented

A Closer Look...

The single channel pipette Transferpette® electronic was **the first microliter pipette worldwide** to be recognized with the 'Ergonomics Approved' certificate from the Technical Control Board Rhineland/Berlin-Brandenburg!

Independent user tests confirm the ergonomics and the operating ease of the product and system! A user acceptance rating of **1.54** is an outstanding result.

You can obtain information about the Transferpette® electronic pipette at www.tuv.com, ID No. 0011105500.



Charging connector jack

Large, clear display

Intuitive operation of all functions using 4 keys

Large pipetting button

Ergonomically arranged ejection button with color code according to volume range.

Individually adjustable finger rest

Slim ergonomic grip

Color indicates volume range

The pipette shaft can be unscrewed and is entirely autoclavable (121 °C).

Due to the optimized standard design of the tip cone, pipette tips from BRAND and other manufacturers' tips can be used.



Ordering Data

Transferpette® electronic

Items supplied:

Each Transferpette® electronic pipette has DE-M marking and is supplied with performance certificate, battery, AC adapter, silicone oil.

Capacity, µl (color-coded)	Subdiv. µl	A* ≤ ± %		CV* ≤ %		With AC adapter for	Cat. No.
● 0.5 - 10	0.01	1.0	0.1	0.4	0.04	Europe (continental)	7052 99
						UK/Ireland	7053 09
						USA/Japan	7053 19
						Australia without AC adapter	7053 29 7053 39
● 2 - 20	0.02	1.0	0.2	0.4	0.08	Europe (continental)	7053 00
						UK/Ireland	7053 10
						USA/Japan	7053 20
						Australia without AC adapter	7053 30 7053 40
● 20 - 200	0.2	0.8	1.6	0.2	0.4	Europe (continental)	7053 03
						UK/Ireland	7053 13
						USA/Japan	7053 23
						Australia without AC adapter	7053 33 7053 43
● 100 - 1000	1.0	0.6	6	0.2	2	Europe (continental)	7053 06
						UK/Ireland	7053 16
						USA/Japan	7053 26
						Australia without AC adapter	7053 36 7053 46
● 500 - 5000	5.0	0.6	30	0.2	10	Europe (continental)	7053 07
						UK/Ireland	7053 17
						USA/Japan	7053 27
						Australia without AC adapter	7053 37 7053 47

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-2. DE-M marking.
A = Accuracy, CV = Coefficient of variation

Accessories

(Other accessories and spare parts can be found in the operating manual.)

3-device charging stand for Transferpette® electronic (up to 1000 µl)

Pack of 1.

for Transferpette® electronic with AC adapter for	Cat. No.
Europe (continental) (230V/50Hz)	7053 90
UK/Ireland (230V/50Hz)	7053 91
USA/Japan (110V/50-60Hz)	7053 92
Australia (240V/50Hz)	7053 93



Filter for Transferpette® single-channel pipettes 0.5-5 ml, please see page 57.

Individual stand for Transferpette® electronic

Also suitable for corresponding models of Transferpette® and Transferpette® S pipettes. Pack of 1.

for Transferpette® electronic	Cat. No.
up to 1000 µl	7053 85
500-5000 µl	7053 86



A Closer Look...

The optimal position of the thumb relative to the functional elements of the pipette is the starting point for a relaxed grip. Avoiding RSI is the key.

The optimum design, the layout of the controls, and the adjustable finger rest provide a Transferpette®-8/-12 electronic multichannel pipette that fits the hand like a glove. Perfect for right-handers and left-handers alike!

The Transferpette®-8/-12 electronic pipette was the world's first electronic multichannel pipette to receive the Ergonomics Certificate. The User Acceptance Rating of **1.55** is unrivaled anywhere!



Charging connector jack

Large, clear display

Intuitive operation of all functions using 4 keys

Ergonomically arranged ejection button with color code according to volume range

Individually adjustable finger rest

Manifold has volume-range color code for easy visual confirmation while pipetting

Complete manifold can be autoclaved at 121 °C and rotates freely 360° in either direction.

Stepped tip ejector reduces ejection forces significantly.

V-rings made of FKM allow effortless mounting and easy ejection of the tips, and readily adapt to tips from various manufacturers.

Individual shafts and seals can easily be replaced in the laboratory (patented).



Ordering Data

Items supplied:


Each Transferpette®-8/-12 electronic pipette has DE-M marking and is supplied with performance certificate, battery, AC adapter, device stand, TipBox, refill unit, reagent reservoir, mounting tool, silicone oil and 1 set of sealing rings made of FKM.



Transferpette®-8 electronic

Capacity, µl (color-coded)	Subdivision µl	A* ≤ ± % µl		CV* ≤ % µl		With AC adapter for	Cat. No.
● 0.5 - 10	0.01	1.2	0.12	0.8	0.08	Europe (continental)	7053 99
						UK/Ireland	7054 09
						USA/Japan	7054 19
						Australia	7054 29
● 1 - 20	0.02	1.0	0.2	0.5	0.1	Europe (continental)	7054 00
						UK/Ireland	7054 10
						USA/Japan	7054 20
						Australia	7054 30
● 5 - 100	0.1	0.8	0.8	0.25	0.25	Europe (continental)	7054 03
						UK/Ireland	7054 13
						USA/Japan	7054 23
						Australia	7054 33
● 10 - 200	0.2	0.8	1.6	0.25	0.5	Europe (continental)	7054 04
						UK/Ireland	7054 14
						USA/Japan	7054 24
						Australia	7054 34
● 15 - 300	0.5	0.6	1.8	0.25	0.75	Europe (continental)	7054 06
						UK/Ireland	7054 16
						USA/Japan	7054 26
						Australia	7054 36

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-2. DE-M marking.
A = Accuracy, CV = Coefficient of variation

Note!  When ordering instruments with DAkkS calibration certificates, the prefix 'DAkkS' must be added to the order number, e.g., DAkkS 7053 99.

BRAND also offers calibration service at the factory lab. For more information, please see page 326.



Transferpette®-12 electronic

Capacity, µl (color-coded)	Subdivision µl	A* ≤ ± % µl	CV* ≤ % µl	With AC adapter for	Cat. No.
● 0.5 - 10	0.01	1.2 0.12	0.8 0.08	Europe (continental) UK/Ireland USA/Japan Australia	7054 49 7054 59 7054 69 7054 79
● 1 - 20	0.02	1.0 0.2	0.5 0.1	Europe (continental) UK/Ireland USA/Japan Australia	7054 50 7054 60 7054 70 7054 80
● 5 - 100	0.1	0.8 0.8	0.25 0.25	Europe (continental) UK/Ireland USA/Japan Australia	7054 53 7054 63 7054 73 7054 83
● 10 - 200	0.2	0.8 1.6	0.25 0.5	Europe (continental) UK/Ireland USA/Japan Australia	7054 54 7054 64 7054 74 7054 84
● 15 - 300	0.5	0.6 1.8	0.25 0.75	Europe (continental) UK/Ireland USA/Japan Australia	7054 56 7054 66 7054 76 7054 86



* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are well within the limits of DIN EN ISO 8655-2. DE-M marking.
A = Accuracy, CV = Coefficient of variation

Accessories

(Other accessories and spare parts can be found in the operating manual.)



Reagent reservoir

PP, high clarity.
Capacity 60 ml.
Autoclavable (121 °C).

Non-sterile, with lid.
Pack of 10.

Cat. No. 7034 59

Sterile, without lid.
Packed individually.
Pack of 100.

Cat. No. 7034 11

Sterile, without lid.
5 per bag, pack of 200.

Cat. No. 7034 09



Pipette Tips and Filter Tips

Standard

from page 74

Ultra Low Retention

from page 78

Pipette tips and filter tips are manufactured by BRAND in a cleanroom under the most modern production conditions, and are automatically rack packed and packaged to ensure that the tips are of consistently high quality.

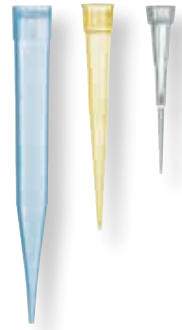
- High-purity polypropylene, free from DiHEMDA and oleamide
- Manufactured without lubricants
- Cadmium-free pigments
- Graduation for a quick volume check
- All racked tips and filter tips up to 1000 μ l are free of DNA (< 40 fg), RNase (< 8.6 fg), endotoxins (< 1 pg) and ATP (< 1 fg)
- Autoclavable at 121 °C (2 bar), acc. DIN EN 285
- Environmentally friendly packaging systems
- CE-marked according to IVD-Directive 98/79 EC



Consistently high quality

Pipette tips and filter tips are the most frequently used disposables in the laboratory. As processing methods have become increasingly sensitive, the requirements for these disposable items have changed significantly over the years. Starting with the raw materials, here PP, to the tools used and the quality tests carried out, a lot of parameters need to be considered to meet the highest standards both in research and standardized applications.

For the manufacture of pipette tips and filter tips, BRAND exclusively uses raw materials that are free from the additives di(2-hydroxyethyl)methyl dodecylammonium (DIHEMA) and 9-octadecenamide (oleamide). Both of these additives are frequently found in PP granules, and can interfere with biological tests, leading to spurious results. Only highly polished tooling equipment is used, so that no parting agents or demolding aids are needed.



New packaging options

In order to guarantee the high quality of our products, from manufacturing through packaging and all the way to the laboratory, BRAND has also optimized the packaging options to comply with the new requirements.

Even the primary packaging for the new systems, such as the PET outer packaging for the new TipRacks (refill units) and the spacers for the new TipStacks, are produced under cleanroom conditions, which guarantees the high purity of the products.

All racked pipette tips and filter tips up to 1000 µl are now free from DNA, RNases, endotoxins and ATP. Sterile tips and packaging are manufactured exclusively under BIO-CERT® quality certification. (for detailed information see page 118).

Cleanroom technique



BRAND disposable items for the life sciences are produced using the most advanced cleanroom techniques in one of the world's largest cleanrooms for laboratory disposable items.

The ongoing cleanroom monitoring includes continuous measurements of air particulates, positive air pressure, air exchange rate, room temperature, and the relative humidity, among other things. This ensures that

the actual parameters can immediately be checked against the nominal values. Deviations are detected immediately, and suitable countermeasures can be taken before the limit values are exceeded.

The high-precision control of environmental conditions provides a very high degree of stability in the corresponding parameters, especially the room temperature. This uniformity, together with quality testing of the

final product by batch, guarantees the consistently high quality in the life science products from BRAND.

For the production of disposable items, class 8, 7, and 5 manufacturing environments are available. Compliance of our class 8 cleanroom with ISO 14644-1 is validated and certified by external, independent auditors.

Pipette tips and Filter Tips Sizes and Description



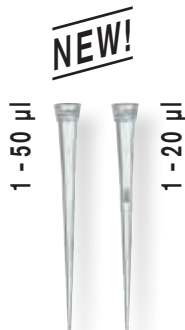
0.1 - 20 µl 0.1 - 1 µl (Filter)

The nano-cap™ tip was specially developed for the nano-liter range and hence is ideal for molecular biological applications such as PCR. It is 37 mm long, and features a capillary rise that is even visible to the naked eye at 0.1 µl. The capillary part of the tip conveniently fills gel wells for gel electrophoresis systems from most manufacturers. Suitable for pipettes up to 20 µl. The racked tips are colorless and placed into a grey-colored tip tray.



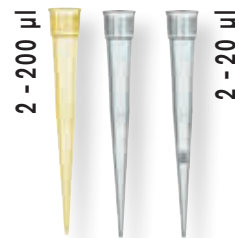
0.5 - 20 µl 0.5 - 10 µl (Filter)

The slender design and 46 mm length allow pipetting in microtubes and microplates without touching the walls. Graduation at 2 µl and 10 µl for quick volume check. The racked tips are colorless and placed into a grey-colored tip tray.



1 - 50 µl 1 - 20 µl (Filter)

With a length of 50 mm, the tip is ideal for working down to the bottom of narrow containers. Graduation at 2.5, 10, 25 and 50 µl for quick volume check. The racked tips are colorless and placed into a grey-colored tip tray.



2 - 200 µl 2 - 20 µl (Filter)

A tested and proven thin-walled tip. Lighter in weight, 50 mm long and can be used for virtually all pipettes with yellow color code. Graduation at 20 µl and 100 µl for a quick volume check. Bulk tips are yellow colored. The racked tips are colorless and placed into a yellow-colored tip tray.

Package Types



Bulk packed in bags, non-sterile

All tips and filter tips are produced under supervised state-of-the-art clean-room conditions and automatically shrink-wrapped in reclosable bags and packaged in cardboard boxes. The batch number is printed on every bag.



Racked (TipRack), sterile and non-sterile

For TipBox. Refill unit, protected in an environmentally compatible packaging of recyclable PET. Sterile TipRacks are supplied with a transfer aid so that the rack can be put into a previously autoclaved box without hand contact.

NEW!



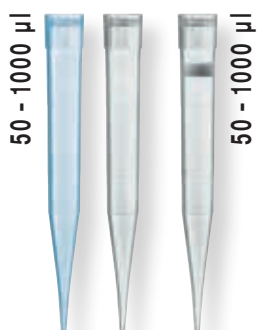
TipBox, sterile and non-sterile

PP. With hinged lid/push-on lid. Two different sizes. Stackable and repeatedly autoclavable at 121 °C (2 bar), acc. DIN EN 285. (Empty TipBox, ordering information, see page 74).



5 - 300 µl
5 - 100/200 µl (Filter)

The thin-walled tip is suitable for reverse pipetting and plate washing. It is 53 mm long and can also be used for pipettes with yellow color code. It is particularly suited for working with multichannel pipettes. Graduation at 50 and 100 µl for quick volume check. The racked tips are colorless and placed into a green-colored tip tray.



50 - 1000 µl
50 - 1000 µl (Filter)

Proven thin-walled tip for routine laboratory and research pipetting. Its length is 70 mm. Graduation at 250, 500 and 1000 µl for a quick volume check. Bulk tips are blue colored. The racked tips are colorless and placed into a blue-colored tip tray.



0.5 - 5 ml

Particularly slender shape, at 160 mm length and approx. 9.6 mm diameter! This allows pipetting even from narrow volume measuring equipment such as volumetric flasks with NS 12/21. Suitable for microliter pipette Transferpette® and Thermo Fisher Scientific FINNPIPETTE®.



1 - 10 ml

156.5 mm length and approx. 15 mm diameter! Ideal for working with the microliter pipette Transferpette® S 10 ml. Compatible with Eppendorf® systems.

NEW!



TipStack™,
sterile and non-sterile

Space-saving, environmentally compatible refill system for TipBox. 5 racks, each having 96 tips incl. 1 TipBox. Sterile TipStacks are supplied with a transfer aid so that the rack can be put into a previously autoclaved box without hand contact. Each packaging unit contains 2 TipStacks.



TipBox 5/10 ml,
non-sterile

The 5 ml and 10 ml tips are only available as a racked tip version in this specially corresponding TipBox.

Ultra Low Retention tips
 see page 78.

Which pipette tip works
with which Transferpette®?

See page 82 for table and information.

BIO-CERT®

Sterile pipette tips from BRAND are manufactured under certified BIO-CERT® quality:

free of DNA, RNase,
endotoxins and ATP.

(for detailed information see page 118).



TipBox/TipRack System

All sizes up to 1000 µl available in 96-unit format

No deflection during tip loading

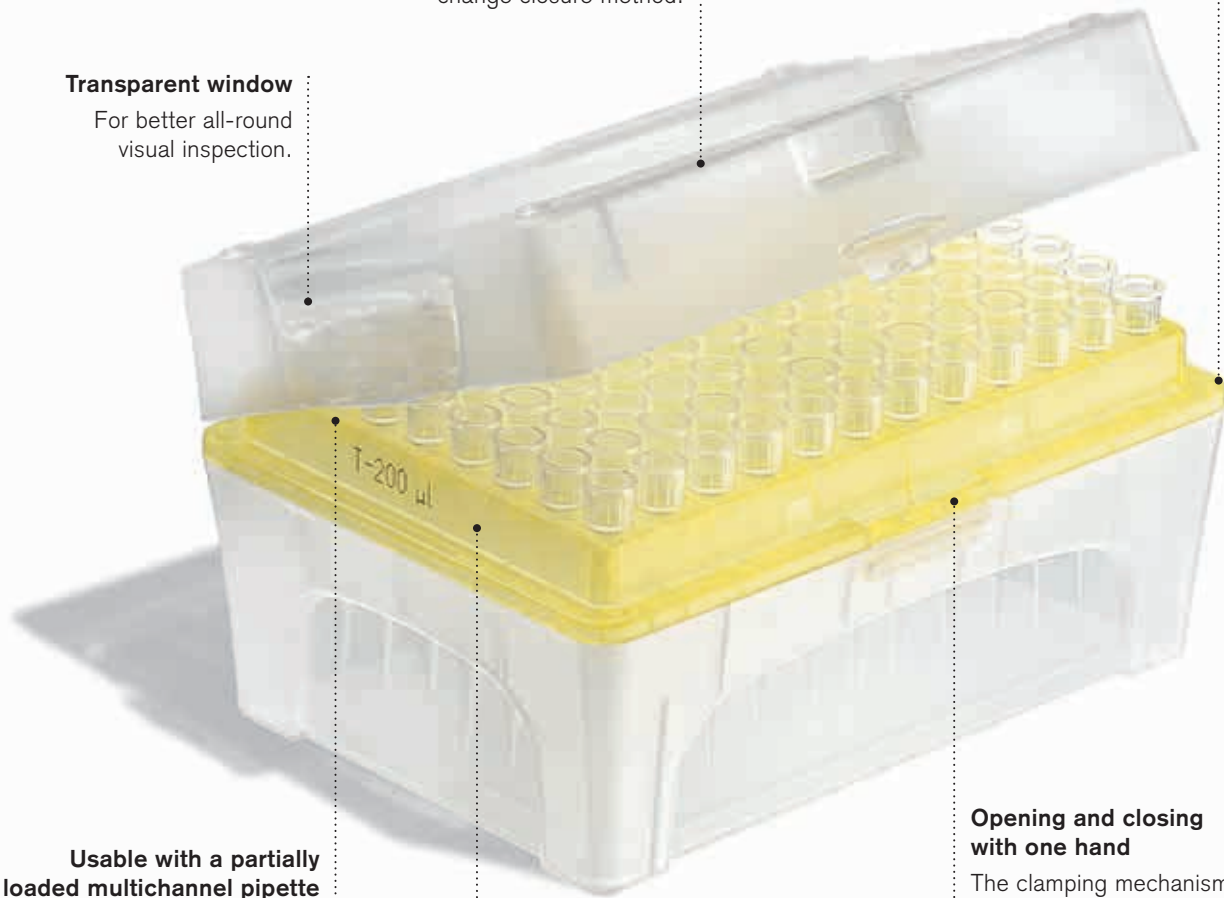
The tip-tray is fabricated from especially rigid PP.

Dual function hinged and push-on lid

Simply rotate 180° to change closure method.

Transparent window

For better all-round visual inspection.



Usable with a partially loaded multichannel pipette

The rimless tip-tray border enables problem-free loading of individual pipette tips with multichannel instruments.

Opening and closing with one hand

The clamping mechanism holds the tip-tray securely in the box.

Colored tip-trays with side panel labeling

The contents of the box are always clearly visible.



TipBox for 1000 µl pipette tips and filter tips. Stackable.

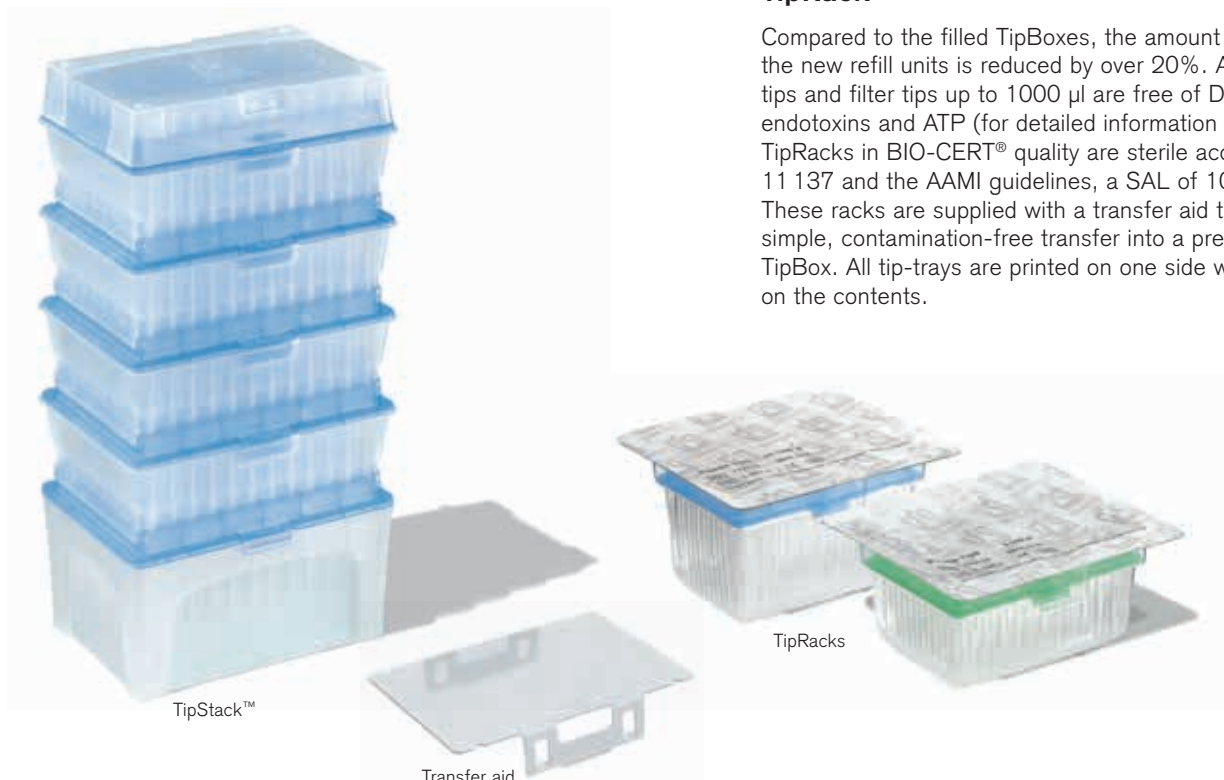


The TipBox is optimized for pipette tips and filter tips up to 300 µl. Stackable.

TipRack, TipStack™ and Transfer Aid

TipRack

Compared to the filled TipBoxes, the amount of waste with the new refill units is reduced by over 20%. All racked pipette tips and filter tips up to 1000 µl are free of DNA, RNases, endotoxins and ATP (for detailed information see page 118). TipRacks in BIO-CERT® quality are sterile according to ISO 11 137 and the AAMI guidelines, a SAL of 10^{-6} is obtained. These racks are supplied with a transfer aid that enables simple, contamination-free transfer into a previously sterilized TipBox. All tip-trays are printed on one side with information on the contents.



TipStack™

A tip tower containing 5 filled tip-trays and a TipBox constitute the new, space-saving refill system for 20 µl, 200 µl and 1000 µl tips.

Tightly sealing spacers prevent the tips from getting stuck together, and ensure them to be free from DNA, RNases, endotoxins and ATP.

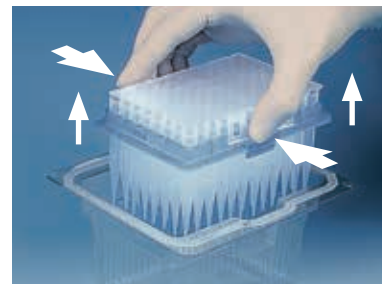
The sterile TipStacks (BIO-CERT® quality) are supplied with a transfer aid for contamination-free use in a previously sterilized TipBox.

- All components are recyclable
- Reduced amount of waste
- Sterilizable and reusable TipBox
- High purity of the pipette tips and filter tips
- Space-saving design



Press the long sides of the transfer aid together, and continue pressing them together while withdrawing the tip-tray.

Ensure that the holding straps for the transfer aid are correctly positioned.



Insert the filled tip-tray perpendicularly from above into the previously sterilized TipBox until it locks into place.



Remove the transfer aid from the mounting plate. Finished – all without tip contact!



0.1 - 20 µl



Pipette tips, 0.1 - 20 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	2000	2 bags, 1000 each	7320 02	–
bulk XXL	10000	10 bags, 1000 each	7320 22	–
racked	960	10 TipRacks, 96 each	7321 02	7321 22
TipBox	480	5 boxes, 96 each	7322 02	–
TipBox sterile	960	10 boxes, 96 each	–	7322 22
TipStack™	–	–	–	–

0.5 - 20 µl



Pipette tips, 0.5 - 20 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	2000	2 bags, 1000 each	7320 04	–
bulk XXL	10000	10 bags, 1000 each	7320 24	–
racked	960	10 TipRacks, 96 each	7321 04	7321 24
TipBox	480	5 boxes, 96 each	7322 04	–
TipBox sterile	960	10 boxes, 96 each	–	7322 24
TipStack™	960	2 x 5 racks, 96 each	7322 44	7322 64

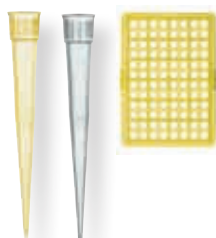
1 - 50 µl



Pipette tips, 1 - 50 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	2000	2 bags, 1000 each	7320 06	–
bulk XXL	10000	10 bags, 1000 each	7320 26	–
racked	960	10 TipRacks, 96 each	7321 06	7321 26
TipBox	480	5 boxes, 96 each	7322 06	–
TipBox sterile	960	10 boxes, 96 each	–	7322 26
TipStack™	–	–	–	–

2 - 200 µl



Pipette tips, 2 - 200 µl (bulk tips are yellow colored)

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	1000	1 bag, 1000 each	7320 08	–
bulk XXL	10000	10 bags, 1000 each	7320 28	–
racked	960	10 TipRacks, 96 each	7321 08	7321 28
TipBox	480	5 boxes, 96 each	7322 08	–
TipBox sterile	960	10 boxes, 96 each	–	7322 28
TipStack™	960	2 x 5 racks, 96 each	7322 48	7322 68



**TipBox, with tip-tray,
empty**

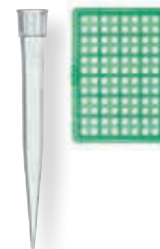
PP. Stackable. Pack of 1.

Model	Cat. No.
up to 50 µl	7329 90
for 200 µl	7329 92
for 300 µl	7329 94
for 1000 µl	7329 96

Pipette tips, 5 - 300 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	1000	1 bag, 1000 each	7320 10	-
bulk XXL	10000	10 bags, 1000 each	7320 30	-
racked	960	10 TipRacks, 96 each	7321 10	7321 30
TipBox	480	5 boxes, 96 each	7322 10	-
TipBox sterile	960	10 boxes, 96 each	-	7322 30
TipStack™	-	-	-	-

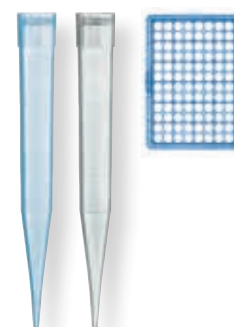
5 - 300 µl



Pipette tips, 50 - 1000 µl (bulk tips are blue colored)

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	1000	2 bags, 500 each	7320 12	-
bulk XXL	5000	10 bags, 500 each	7320 32	-
racked	960	10 TipRacks, 96 each	7321 12	7321 32
TipBox	480	5 boxes, 96 each	7322 12	-
TipBox sterile	960	10 boxes, 96 each	-	7322 32
TipStack™	960	2 x 5 racks, 96 each	7322 52	7322 72

50 - 1000 µl



Pipette tips, 0.5 - 5 ml

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	200	1 bag, 200 each	7025 95	-
bulk XXL	1000	5 bags, 200 each	7026 00	-
racked	-	-	-	-
TipBox 5 ml	28	1 box, 28 each	7026 05	-
TipStack™	-	-	-	-

0.5 - 5 ml



Pipette tips, 1 - 10 ml

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	200	2 bags, 100 each	7026 03	-
bulk XXL	1000	10 bags, 100 each	7026 04	-
racked	-	-	-	-
TipBox 10 ml	18	1 box, 18 each	7026 08	-
TipStack™	-	-	-	-



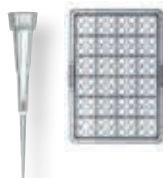


Filter Tips

Non-self-sealing filter tips from BRAND have a PE filter that is free from chemical additives. Permeability is controlled by the combination of pore size and filter length, so that no aerosols can reach the pipette shaft. These filters function with consistent reliability. On the other hand, liquids can pass very slowly should they accidentally contact the filter.

Since the filter does not swell as in the case of self-sealing filter tips, the sample can be recovered from the filter by simply actuating the pipette's blow-out function, or by centrifugation if necessary. This is clearly an important advantage of non-self-sealing filters, especially when working with valuable samples. As an added advantage, the absence of filter additives protects samples from contamination.

0.1 - 1 μ l



Filter tips, 0.1 - 1 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	960	1 bag, 960 each	7325 02	–
racked	960	10 TipRacks, 96 each	7326 02	7326 22
TipBox	480	5 boxes, 96 each	7327 02	–
TipBox sterile	960	10 boxes, 96 each	–	7327 22

0.5 - 10 μ l



Filter tips, 0.5 - 10 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	960	1 bag, 960 each	7325 04	–
racked	960	10 TipRacks, 96 each	7326 04	7326 24
TipBox	480	5 boxes, 96 each	7327 04	–
TipBox sterile	960	10 boxes, 96 each	–	7327 24

1 - 20 μ l



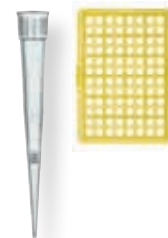
Filter tips, 1 - 20 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	960	1 bag, 960 each	7325 06	–
racked	960	10 TipRacks, 96 each	7326 06	7326 26
TipBox	480	5 boxes, 96 each	7327 06	–
TipBox sterile	960	10 boxes, 96 each	–	7327 26

Filter tips, 2 - 20 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	960	1 bag, 960 each	7325 08	–
racked	960	10 TipRacks, 96 each	7326 08	7326 28
TipBox	480	5 boxes, 96 each	7327 08	–
TipBox sterile	960	10 boxes, 96 each	–	7327 28

2 - 20 µl



Filter tips, 5 - 100 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	960	1 bag, 960 each	7325 10	–
racked	960	10 TipRacks, 96 each	7326 10	7326 30
TipBox	480	5 boxes, 96 each	7327 10	–
TipBox sterile	960	10 boxes, 96 each	–	7327 30

5 - 100 µl



Filter tips, 5 - 200 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	960	1 bag, 960 each	7325 12	–
racked	960	10 TipRacks, 96 each	7326 12	7326 32
TipBox	480	5 boxes, 96 each	7327 12	–
TipBox sterile	960	10 boxes, 96 each	–	7327 32

5 - 200 µl



Filter tips, 50 - 1000 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
bulk	960	1 bag, 960 each	7325 14	–
racked	960	10 TipRacks, 96 each	7326 14	7326 34
TipBox	480	5 boxes, 96 each	7327 14	–
TipBox sterile	960	10 boxes, 96 each	–	7327 34

50 - 1000 µl



bulk



racked



TipBox





Ultra Low Retention Pipette Tips

The surfaces of the Ultra Low Retention tips are produced through a special physicochemical process. The homogeneous, defect-free surface thus produced has extremely low surface tension – over 50% less than PTFE (see table). This significantly reduces sample loss and provides substantially higher reproducibility when working with critical media.

- Ideal for biological samples that contain detergents such as TRITON™ X-100, SDS, Tween etc.
- No additives that can be leached out! No siliconization of the surface!
- High chemical resistance. Ideal for working with solvents.
- The tips can be autoclaved at 121 °C (2 bar) without damaging the material properties.

Surface	Surface tension
BRAND® PP Ultra Low Retention	9 mN/m
PTFE	19 mN/m
Silicone	21.5 mN/m
Untreated PP	30 mN/m
Water	72 mN/m

0.1 - 20 µl



ULR pipette tips, 0.1 - 20 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7323 02	–
TipBox sterile	960	10 boxes, 96 each	–	7323 22
TipStack™	–	–	–	–

0.5 - 20 µl



ULR pipette tips, 0.5 - 20 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7323 04	–
TipBox sterile	960	10 boxes, 96 each	–	7323 24
TipStack™	960	2 x 5 racks, 96 each	7323 44	7323 64

ULR pipette tips, 1 - 50 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7323 06	–
TipBox sterile	960	10 boxes, 96 each	–	7323 26
TipStack™	–	–	–	–

1 - 50 µl



ULR pipette tips, 2 - 200 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7323 08	–
TipBox sterile	960	10 boxes, 96 each	–	7323 28
TipStack™	960	2 x 5 racks, 96 each	7323 48	7323 68

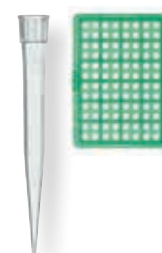
2 - 200 µl



ULR pipette tips, 5 - 300 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7323 10	–
TipBox sterile	960	10 boxes, 96 each	–	7323 30
TipStack™	–	–	–	–

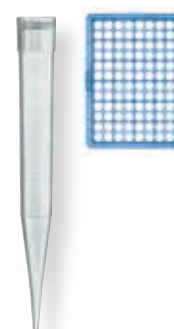
5 - 300 µl



ULR pipette tips, 50 - 1000 µl

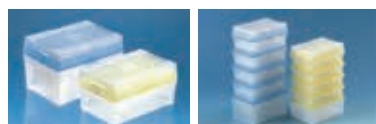
	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7323 12	–
TipBox sterile	960	10 boxes, 96 each	–	7323 32
TipStack™	960	2 x 5 racks, 96 each	7323 52	7323 72

50 - 1000 µl



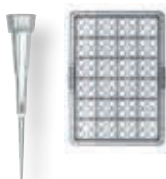
TipBox

TipStack™



Ultra Low Retention Filter Tips

0.1 - 1 μ l



ULR filter tips, 0.1 - 1 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7328 02	-
TipBox sterile	960	10 boxes, 96 each	-	7328 22

0.5 - 10 μ l



ULR filter tips, 0,5 - 10 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7328 04	-
TipBox sterile	960	10 boxes, 96 each	-	7328 24

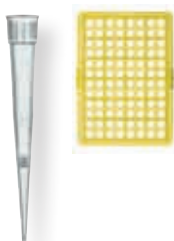
1 - 20 μ l



ULR filter tips, 1 - 20 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7328 06	-
TipBox sterile	960	10 boxes, 96 each	-	7328 26

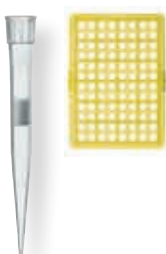
2 - 20 μ l



ULR filter tips, 2 - 20 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7328 08	-
TipBox sterile	960	10 boxes, 96 each	-	7328 28

5 - 100 μ l



ULR filter tips, 5 - 100 μ l

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7328 10	-
TipBox sterile	960	10 boxes, 96 each	-	7328 30

ULR filter tips, 5 - 200 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7328 12	-
TipBox sterile	960	10 boxes, 96 each	-	7328 32

5 - 200 µl



ULR filter tips, 50 - 1000 µl

	Quantity	Pack of	non-sterile Cat. No.	sterile Cat. No.
TipBox	480	5 boxes, 96 each	7328 14	-
TipBox sterile	960	10 boxes, 96 each	-	7328 34

50 - 1000 µl



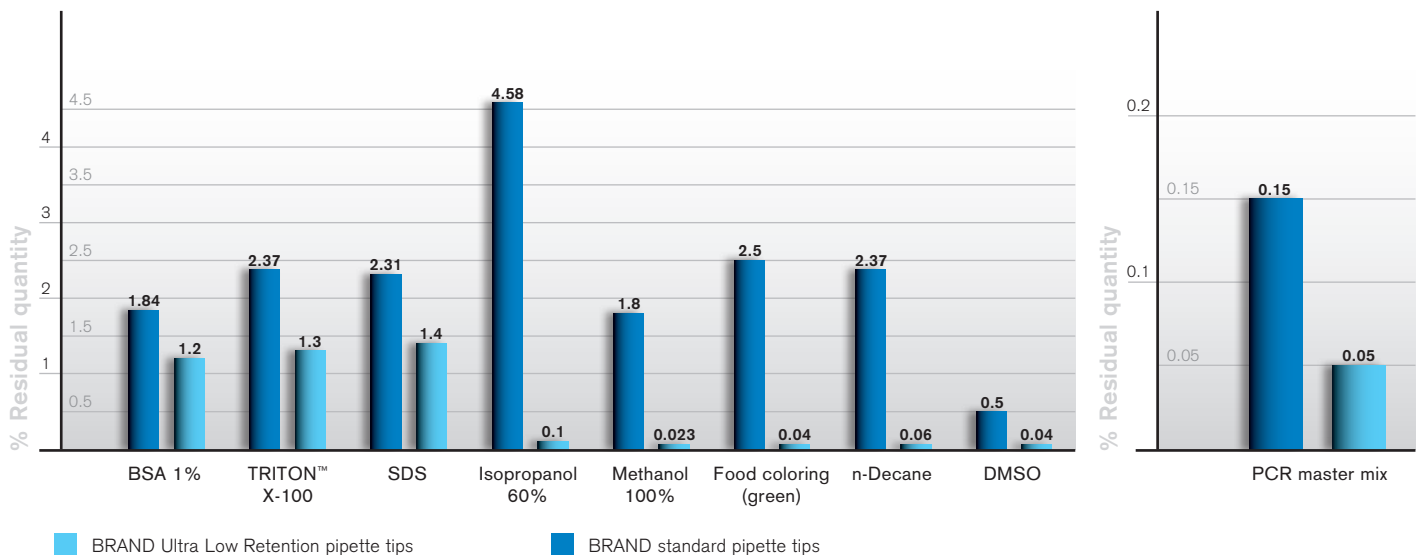
TipBox



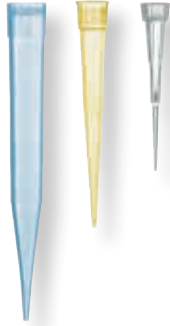
Comparison chart

Standard and Ultra Low Retention pipette tips from BRAND

Volume 200 µl, compared with various media and subsequent photometric analysis and conversion.



Pipette Tips and Filter Tips in Standard and Ultra Low Retention Quality

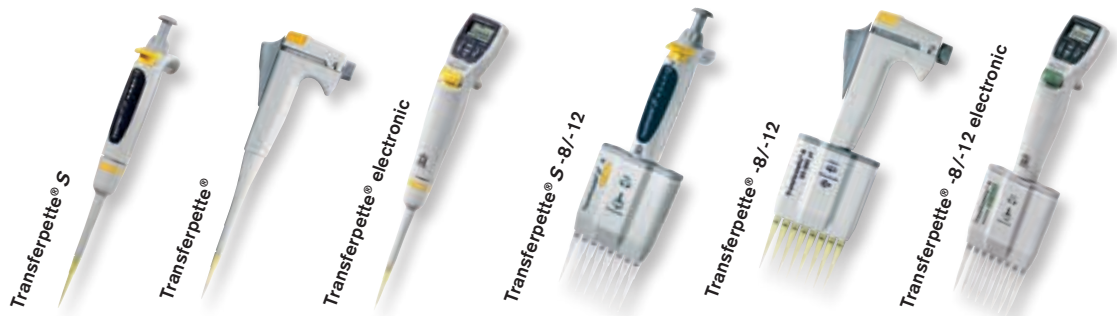


Optimum results are achieved in combination with BRAND microliter pipettes. BRAND quality tips seat perfectly for precise analyses.

Pipette and filter tips from BRAND are tested for BRAND pipettes and most of the pipette types of GILSON®, Thermo Fisher Scientific FINNPIPE®[®], Eppendorf® and BIOHIT®/sartorius®.

The 5 ml tip is exclusively tested for BRAND pipettes and Thermo Fisher Scientific FINNPIPE®. The 10 ml tip is tested for BRAND and Eppendorf®.

Note: Pipette shafts can be subject to modification. The fit depends on the manufacturer, pipette type, serial number, and date of manufacture, among other things. We recommend checking the fit of the tips using the free sample bag.



The right Pipette Tip

Pipette tips Filter tips Volume range	Transferpette® single channel Nominal volume													Transferpette® multichannel Nominal volume												
	1 µl	2.5 µl	5 µl	10 µl	10 µl ²⁾	20 µl	20 µl ²⁾	25 µl	50 µl	100 µl	200 µl	200 µl ³⁾	250 µl	500 µl	1000 µl	2 ml	5 ml	10 ml	10 µl	20 µl	25 µl	50 µl	100 µl	200 µl	300 µl	
0.1 - 20 µl	✓	✓ ₄₎		✓ ₄₎		✓ ₄₎													✓	✓						
0.5 - 20 µl		✓		✓		✓													✓	✓						
1 - 50 µl		✓ ₄₎		✓		✓													✓	✓						
2 - 200 µl ¹⁾			✓		✓		✓	✓	✓	✓	✓										✓	✓	✓	✓	✓	✓
5 - 300 µl			✓		✓		✓	✓	✓	✓	✓										✓	✓	✓	✓	✓	✓
50 - 1000 µl ¹⁾												✓	✓	✓	✓											
0.5 - 5 ml																✓	✓									
1 - 10 ml																		✓								
0.1 - 1 µl	✓				✓ ₄₎														✓							
0.5 - 10 µl		✓		✓		✓													✓	✓						
1 - 20 µl		✓ ₄₎		✓		✓													✓	✓						
2 - 20 µl			✓		✓		✓	✓	✓	✓	✓										✓	✓	✓	✓	✓	✓
5 - 100 µl			✓		✓		✓	✓	✓	✓	✓										✓	✓	✓	✓	✓	✓
5 - 200 µl											✓										✓	✓	✓	✓	✓	✓
50 - 1000 µl														✓	✓											

✓ = Tip volume less than pipette's nominal volume

¹⁾ Bulk tips are yellow or blue colored, racked tips are colorless in a yellow-colored or blue-colored tip tray

²⁾ Transferpette® with yellow color code

³⁾ Transferpette® with blue color code

⁴⁾ Calibration and possible adjustment needed

The Transferpettor pipette is ideal for liquids when air displacement pipettes just won't work. Viscous, foaming, high vapor pressure: the Transferpettor pipette can handle them all, with the precision and accuracy you expect from a BRAND pipette. This is the pipette for your most demanding pipetting operations.



Transferpettor

Piston-operated pipette

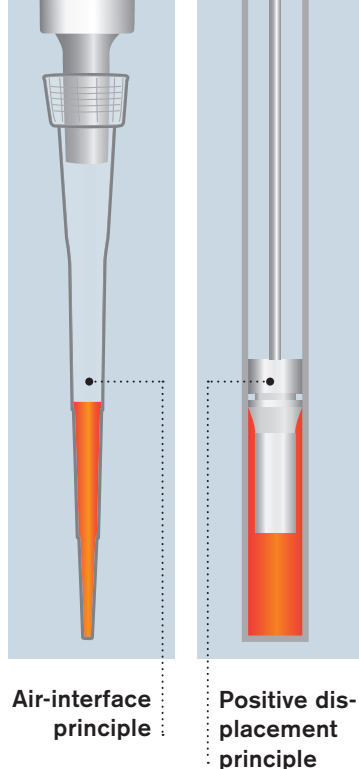


A Closer Look...

The Transferpettor pipette operates on the positive displacement principle.

In contrast with air displacement pipettes, the piston is in direct contact with the aspirated liquid. The movable, precision-fit piston always glides smoothly along the walls of the capillaries and tips, right on through to the last drop that can be clearly observed as it leaves the opening.

In this way, the results obtained are exactly reproducible regardless of the pipetting rate and environmental conditions.



There is no need to discard tips after each pipetting operation, since residual wetting is negligible.

However, in cases where no carry-over can be tolerated, for example with infectious or radioactive media, a different BRAND Transferpette® model is recommended, such as an air displacement pipette with a disposable tip for convenient operation (page 45).



The Transferpettor pipette is suitable for media with:

- Density up to 13.6 g/cm³
- Viscosity up to 140,000 mm²/s (depending on the instrument size)
- Vapor pressure up to 500 mbar

Working temperature range:

- 15 °C to 40 °C

Volume range 1 µl to 10 ml:

- Transferpettor fixed volume and digital adjustable pipette up to 200 µl:
 - Caps: glass
 - Seals: PTFE
- Transferpettor digital adjustable pipette above 100 µl:
 - Caps: PP
 - Seals: PE



Application



Media which tend to foam

- surfactant solutions



Media with high vapor pressure

- alcohols, ether, hydrocarbons



Highly viscous media and media with high density

- highly concentrated protein solutions, oils, resins, fats
- glycerin, mercury, sulfuric acid

Ordering Data

Transferpettor, Digital-adjustable

Capacity μl	A* ≤ ± % μl	CV* ≤ % μl	Subdivision μl	Color code	Cat. No.
2.5 - 10	1.0 0.1	0.8 0.08	0.01	orange	7018 07
5 - 25	0.8 0.2	0.5 0.125	0.1	2 x white	7018 12
10 - 50	0.6 0.3	0.4 0.2	0.1	green	7018 17
20 - 100	0.6 0.6	0.4 0.4	0.1	blue	7018 22
100 - 500	0.5 2.5	0.2 1.0	1.0	green	7028 04
200 - 1000	0.5 5.0	0.2 2.0	1.0	yellow	7028 06
1000 - 5000	0.5 25.0	0.2 10.0	10.0	red	7028 10
2000 - 10000	0.5 50.0	0.2 20.0	10.0	orange	7028 12

Transferpettor, Fixed-volume

Capacity μl	A* ≤ ± % μl	CV* ≤ % μl	Color code	Cat. No.
1	4.0 0.04	4.0 0.04	white	7018 42
2	2.5 0.05	2.0 0.04	white	7018 44
5	1.0 0.05	0.8 0.04	white	7018 53
10	1.0 0.1	0.8 0.08	orange	7018 58
20	0.8 0.16	0.5 0.1	black	7018 63
25	0.8 0.2	0.4 0.1	2 x white	7018 64
50	0.6 0.3	0.4 0.2	green	7018 68
100	0.6 0.6	0.4 0.4	blue	7018 73
200	0.5 1.0	0.2 0.4	red	7018 78

* Calibrated to deliver (TD, Ex). Error limits according to the nominal capacity (= maximum volume) indicated on the instrument, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth, steady operation. The error limits are within the limits of DIN EN ISO 8655-2. DE-M marking. A = Accuracy, CV = Coefficient of variation



Items supplied:

Each Transferpettor pipette has DE-M marking and is supplied with performance certificate.

Accessories and Spare Parts

Caps, glass

DE-M marking.
Pack of 100 (except 100/200 µl: pack of 50).



For nominal volume, µl	Color code	Cat. No.
1, 2, 3, 4, 5	white	7019 00
10	orange	7019 02
20	black	7019 04
25	2 x white	7019 06
50	green	7019 08
100, 200	blue	7019 10

Caps, PP

DE-M marking.
Pack of 10.



For capacity µl	Color code	Cat. No.
100 - 500	green	7028 52
200 - 1000	yellow	7028 54
1000 - 5000	red	7028 58
2000 - 10000	orange	7028 60

Combi-pack Caps and Seal

DE-M marking.
Caps, PP: pack of 2. Seal, PE: pack of 1.

For capacity µl	Color code	Cat. No.
100 - 500	green	7028 83
200 - 1000	yellow	7028 84
1000 - 5000	red	7028 85
2000 - 10000	orange	7028 86

Repair set

DE-M marking. 1 allen key, 1 piston rod with fitted PTFE Transferpettor-Seal (for capacities ≥ 20 µl), 1 calibrating gauge, 1 screwdriver, 3 clamping discs, 1 fixing-screw, 3 Transferpettor-Seals, PTFE, 1 mounting block (for capacities ≥ 20 µl).

For capacity µl	Mounting block	Cat. No.
1, 2, 5	–	7019 64
10	–	7019 65
20, 25	natural	7019 66
50	green	7019 67
100, 200	blue	7019 68

Seals, PTFE

DE-M marking.
Pack of 3, with mounting block.



For capacity µl	Cat. No.
20, 25	7019 20
50	7019 22
100, 200	7019 24

Seals, PE

DE-M marking.
Pack of 10.



For capacity µl	Cat. No.
100 - 500	7028 64
200 - 1000	7028 66
1000 - 5000	7028 70
2000 - 10000	7028 72

Transferpettor-Station

Accommodates 2 instruments
0.5 to 10 ml with accessories.
Pack of 1.



Cat. No.	7028 90
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Transferpettor-Station

Accommodates 4 instruments
up to 200 µl with accessories.
Pack of 1.



Cat. No.	7019 60
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Piston rod

DE-M marking.
For capacities ≥ 20 µl, provided with seal. Pack of 3.

For capacity µl	Cat. No.
1, 2, 5	7019 28
10	7019 30
20, 25	7019 32
50	7019 34
100	7019 36
200	7019 38

Serial pipetting can be quick and easy with the HandyStep® S repetitive pipette. Ergonomic and durable, the instrument, in conjunction with PD-Tips from BRAND, gives you as many as 49 repetitive dispensings from a single aspiration. The simple operation of the HandyStep® S repetitive pipette, combined with the positive displacement PD-Tips, makes it ideal for versatile use in fields like microbiology, immunology and biochemistry.



HandyStep® S Repetitive Pipette



A Closer Look...

The HandyStep® S repetitive pipette is ideal for routine or research applications in diagnostics, molecular biology, environmental analysis, and many more.

HandyStep® S and PD-Tips work on the direct displacement principle. This offers the highest-precision dispensing of liquid media with high viscosity, high density, or high vapor pressure. Direct displacement permits contamination-free operation, since no aerosols are formed.

The HandyStep® S repetitive pipette is suitable for use with BRAND PD-Tips, Encode™ tips, Repet tips, Combitips®, Combitips® plus and other compatible dispenser tips.



Use and Handling



- Increased chemical resistance through innovative plastic materials
- Easy tip mounting – PD-Tip is now simply inserted from below
- Dispensed volume range from 2 µl to 5 ml
- Up to 49 dispensing steps
- Weighs only 108 g
- CE-**IVD**-compliant

HandyStep® S with PD-Tips volume table

Offers 59 different partial volumes with different numbers of dispensing steps, depending on the PD-Tip size and stroke setting number used.

Setting	Tip size (ml)										Steps
	0.1	0.5	1	1.25	2.5	5	10	12.5	25	50	
1	2	10	20	25	50	100	200	250	500	1000	49
1.5	3	15	30	37.5	75	150	300	375	750	1500	32
2	4	20	40	50	100	200	400	500	1000	2000	24
2.5	5	25	50	62.5	125	250	500	625	1250	2500	19
3	6	30	60	75	150	300	600	750	1500	3000	15
3.5	7	35	70	87.5	175	350	700	875	1750	3500	13
4	8	40	80	100	200	400	800	1000	2000	4000	11
4.5	9	45	90	112.5	225	450	900	1125	2250	4500	10
5	10	50	100	125	250	500	1000	1250	2500	5000	9

Volume (µl)

Accuracy Table (PD-Tips from BRAND, 20 °C 'Ex', DE-M marking)

PD-Tip size ml	Volume range µl	A* ≤ ± %			CV* ≤ %		
		Stroke setting ± % of nominal volume			Stroke setting ± % of nominal volume		
		1 ± 2%	3 ± 6%	5 ± 10%	1 ± 2%	3 ± 6%	5 ± 10%
0.1	2 - 10	4.0	2.4	1.6	6.0	3.0	2.0
0.5	10 - 50	2.5	1.5	1.0	2.5	1.5	1.0
1	20 - 100	2.5	1.5	1.0	2.0	1.2	0.8
1.25	25 - 125	2.5	1.4	0.9	2.0	1.1	0.7
2.5	50 - 250	1.8	1.1	0.7	1.5	0.9	0.6
5	100 - 500	1.8	1.1	0.7	1.5	0.9	0.7
10	200 - 1000	1.8	1.1	0.7	2.0	1.2	0.8
12.5	250 - 1250	1.8	1.1	0.8	3.2	2.0	1.4
25	500 - 2500	1.5	0.9	0.6	3.0	1.5	1.0
50	1000 - 5000	1.5	0.8	0.5	5.0	1.8	1.2

A* = Accuracy, CV* = Coefficient of variation

The nominal volume is the maximum volume printed on the PD-Tip.

Error limits refer to the partial volume set relative to the PD-Tip size, obtained at equal temperature (20 °C) of instrument, tip, ambience and dist. H₂O, and with smooth, steady operation. The testing is according to DIN EN ISO 8655-5.



Information for **PD-Tips from BRAND** with size encoding on pages 95-96.

Ordering Data




HandyStep® S

Items supplied:

Each HandyStep® S repetitive pipette has DE-M marking, serial number, performance certificate, shelf/rack mount, 3 PD-Tips: 0.1 ml, 1 ml and 10 ml.
Pack of 1.

Cat. No.

7051 10

Note!  BRAND also offers **calibration service** at the factory lab (for more information, please see page 326).

Accessory

Shelf/rack mount

for HandyStep® S. Can be fitted to the bench-top rack of Transferpette® S (page 52).
Pack of 1.

Cat. No.

7051 30



The HandyStep® electronic repetitive pipette was designed to provide effortless pipetting for repetitive serial dispensing. Reduced operating forces, intuitive menu and easy-to-read display further simplify repetitive pipetting.

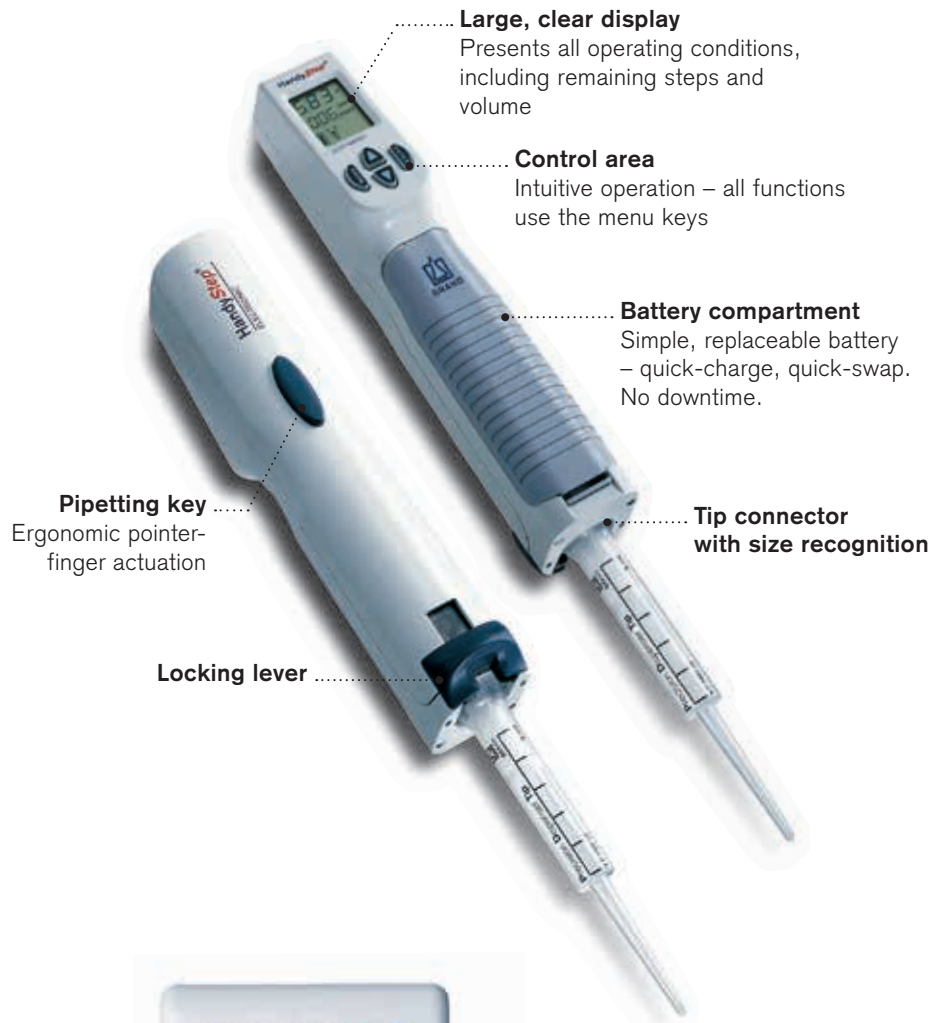


HandyStep® electronic Repetitive Pipette



A Closer Look...

- **7.01 µl – 70.1 µl – 1.01 ml – 11.4 ml?**
Any volume you require from 1.0 µl to 50 ml
- **Patented automatic tip size recognition** of the PD-Tips from BRAND with size encoding
- **Compatible system:** will accept most third-party dispenser tips
- **Versatile operation** with 3 modes: Dispensing – Automatic Dispensing – Pipetting
- **Patented learning function** for individual adjustments of intervals in automatic dispensing
- **Separate speed adjustment** for filling and dispensing, independently adjustable
- **NiMH battery pack** – easy to replace, charges in as little as 2.5 hours!
- **Charge** the storage battery either in the instrument or separately in the charger
- **CE-IVD-compliant**



Large, clear display
Presents all operating conditions, including remaining steps and volume

Control area
Intuitive operation – all functions use the menu keys

Battery compartment
Simple, replaceable battery – quick-charge, quick-swap. No downtime.

Pipetting key
Ergonomic pointer-finger actuation

Tip connector with size recognition

Locking lever



Step volume 93.5 µl **Volume unit**

Number of steps 013 STEPS **Function**

Battery status [Battery Icon] **Dispensing**
[Speed Icon] **Speed**

Selection key 1

Menu selection key MENU **Confirmation key**

Selection key 2 [Arrow Key] [Arrow Key]

Use and Handling

Dispensing (DISP) the standard mode

A predefined volume is dispensed repeatedly.



Automatic Dispensing (AUTO-DISP)

The instrument uses its patented learning function to calculate the average time interval between your first three dispensing steps, and automatically continues to work at this rhythm. No need to calculate and enter time intervals manually!



Pipetting (PIP)

Single aspiration/dispense positive displacement function. Ideal for pipetting viscous or volatile fluids.



Accuracy table (PD-Tips from BRAND, 20 °C 'Ex', DE-M marking)

PD-Tip size	Volume range	Subdivision	Nominal volume (A* ≤ ± %)				Nominal volume (CV* ≤ %)				
			100%	50%	10%	1%	100%	50%	10%	1%	
0.1 ml	1 µl - 100 µl	1 µl - 100 µl	0.1 µl	1.0	1.0	1.6	8.0	0.5	1.0	2.0	12.0
0.5 ml	5 µl - 500 µl	5 µl - 100 µl 100 µl - 500 µl	0.1 µl 1 µl	0.9	0.9	1.0	5.0	0.3	0.6	1.0	5.0
1.0 ml	10 µl - 1 ml	10 µl - 1 ml	1 µl	0.6	0.9	1.0	5.0	0.3	0.5	0.8	4.0
1.25 ml	12.5 µl - 1250 µl	12.5 µl - 100 µl 100 µl - 1000 µl 1 ml - 1.25 ml	0.5 µl 1 µl 10 µl	0.6	0.6	0.9	5.0	0.2	0.5	0.7	4.0
2.5 ml	25 µl - 2500 µl	25 µl - 1000 µl 1 ml - 2.5 ml	1 µl 10 µl	0.5	0.6	0.7	3.5	0.15	0.3	0.6	3.0
5.0 ml	50 µl - 5000 µl	50 µl - 1000 µl 1 ml - 5 ml	1 µl 10 µl	0.5	0.5	0.7	3.5	0.15	0.4	0.7	3.0
10.0 ml	100 µl - 10 ml	100 µl - 10 ml	10 µl	0.4	0.5	0.7	3.5	0.15	0.5	0.8	4.0
12.5 ml	125 µl - 12.5 ml	125 µl - 1000 µl 1 ml - 10 ml 10 ml - 12.5 ml	5 µl 10 µl 100 µl	0.5	0.5	0.8	3.5	0.15	0.6	1.4	6.5
25.0 ml	250 µl - 25 ml	250 µl - 10 ml 10 ml - 25 ml	10 µl 100 µl	0.5	0.5	0.6	3.0	0.15	0.3	1.0	6.0
50.0 ml	500 µl - 50 ml	500 µl - 10 ml 10 ml - 50 ml	10 µl 100 µl	0.5	0.5	0.5	3.0	0.15	0.4	1.2	9.0

* Error limits refer to the nominal volumes and partial volumes relative to the PD-Tip, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C, and with smooth operation. The error limits defined in ISO 8655 are not exceeded. A = Accuracy, CV = Coefficient of variation

The nominal volume is the maximum volume printed on the PD-Tip.

Compatible with third-party dispenser tips!

The special tip connector of the HandyStep® electronic repetitive pipette will accept most common dispenser tips such as Combitips®, Combitips® plus, Repet-Tips, Encode™-Tips, and others. Simply enter the tip size manually.

Ordering Data




HandyStep® electronic

Items supplied:

Each HandyStep® electronic has DE-M marking and is supplied with performance certificate, NiMH battery pack, charging dock and AC adapter. One each PD-Tip size 0.5 ml, 1.25 ml, 2.5 ml, 5 ml and 12.5 ml.

AC adapter	Cat. No.
Europe (continental) (230 V/50 Hz)	7050 00
UK/Ireland (230 V/50 Hz)	7050 01
USA/Japan (110 V/50-60 Hz)	7050 02
Australia (240 V/50 Hz)	7050 03
without charging dock	7050 04

Note!  BRAND also offers **calibration service** at the factory lab (for more information, please see page 326).



The ideal combination:

PD-Tips from BRAND and HandyStep® electronic

The HandyStep® electronic repetitive pipette saves time and prevents errors through automatic tip size recognition of the PD-Tips from BRAND. The size of these tips is encoded in their piston (patented). After inserting the tip, the size is automatically recognized and displayed, making it easy to select the volume to be dispensed. When a new PD-Tip of the same size is inserted, all instrument settings are maintained. Information for PD-Tips with size encoding on page 96.

Accessories

AC adapter for charging dock

Pack of 1.

Description	Cat. No.
Europe (continental) (230 V/50 Hz)	7050 50
UK/Ireland (230 V/50 Hz)	7050 51
USA/Japan (110 V/50-60 Hz)	7050 52
Australia (240 V/50 Hz)	7050 53



Charging dock

Without AC adapter.
Pack of 1.

Cat. No.	7050 20
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NiMH Battery Pack

Pack of 1.

Cat. No.	7050 25
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PD-Tips

Precision Dispenser Tips



The PD-Tips with patented size encoding are the ideal system component for the repetitive pipettes HandyStep® electronic (with automatic tip size recognition) and HandyStep® S from BRAND. The PD-Tips comply with ISO 8655 requirements and come with a batch certificate. CE-marked according to IVD-Directive 98/79 EC. PD-Tips are available either non-sterile or sterile/endotoxin-free (individually wrapped), as well as in **BIO-CERT®** quality (see page 118 for detailed information).

- PD-Tips can be used with compatible third-party dispensing systems. The automatic size detection option is available in HandyStep® electronic, GILSON® REPETMAN™ and Rainin AutoRep™ E. In addition, PD-Tips can be used with the repetitive pipette HandyStep® S, Rainin AutoRep™ M, Rainin AutoRep™ S, Eppendorf® Multipette® 4780 and EDOS 521 among others.
- PD-Tips are made from high-quality materials (cylinder: PP, piston: PE-HD, 0.1 ml: LCP).
- PD-Tips work on the positive displacement principle and are therefore particularly suitable for dispensing of fluids with high viscosity, high vapor pressure, etc.



Information about the **HandyStep® S** and **HandyStep® electronic** on pages 87-94.

Accuracy table (PD-Tips from BRAND, 20 °C 'Ex', DE-M marking)

PD-Tip size	Volume range	Nominal volume (A* ≤ ± %)				Nominal volume (CV* ≤ %)			
		100%	50%	10%	1%	100%	50%	10%	1%
0.1 ml	1.0 µl - 100 µl	1.0	1.0	1.6	8.0	0.5	1.0	2.0	12.0
0.5 ml	5.0 µl - 500 µl	0.9	0.9	1.0	5.0	0.3	0.6	1.0	5.0
1.0 ml	10.0 µl - 1 ml	0.6	0.9	1.0	5.0	0.3	0.5	0.8	4.0
1.25 ml	12.5 µl - 1250 µl	0.6	0.6	0.9	5.0	0.2	0.5	0.7	4.0
2.5 ml	25.0 µl - 2500 µl	0.5	0.6	0.7	3.5	0.15	0.3	0.6	3.0
5.0 ml	50.0 µl - 5000 µl	0.5	0.5	0.7	3.5	0.15	0.4	0.7	3.0
10.0 ml	100 µl - 10 ml	0.4	0.5	0.7	3.5	0.15	0.5	0.8	4.0
12.5 ml	125 µl - 12.5 ml	0.5	0.5	0.8	3.5	0.15	0.6	1.4	6.5
25.0 ml	250 µl - 25 ml	0.5	0.5	0.6	3.0	0.15	0.3	1.0	6.0
50.0 ml	500 µl - 50 ml	0.5	0.5	0.5	3.0	0.15	0.4	1.2	9.0

* Error limits refer to the nominal volumes and partial volumes relative to the PD-Tip, obtained with instrument and distilled water at equilibrium with ambient temperature at 20 °C. and with smooth operation. The error limits defined in ISO 8655 are not exceeded. A = Accuracy. CV = Coefficient of variation

The nominal volume is the maximum volume printed on the PD-Tip.





PD-Tips, non-sterile

Precision Dispenser Tips

Capacity ml	Pack of	Cat. No.
0.1	100	7024 02
0.5	100	7023 70
1.0	100	7024 06
1.25	100	7023 72
2.5	100	7023 74
5	100	7023 76
10	100	7024 07
12.5	100	7023 78
25*	50	7023 80
50*	25	7023 82
PD-Tip Set (20 PD tips each in sizes of 0.5, 1, 1.25, 2.5, 5, 10 and 12.5 ml)		7023 68

* incl. 1 adapter

PD-Tips, sterile

Precision Dispenser Tips, individually wrapped



Capacity ml	Pack of	sterile/endotoxin-free Cat. No.	BIO-CERT® Cat. No.
0.1	100	7024 04	7026 83
0.5	100	7023 84	7026 84
1.0	100	7024 36	7026 85
1.25	100	7023 86	7026 86
2.5	100	7023 88	7026 88
5	100	7023 90	7026 90
10	100	7024 38	7026 91
12.5	100	7023 92	7026 92
25*	25	7023 94	7026 94
50*	25	7023 96	7026 96

* incl. 1 adapter


For detailed information about **BIO-CERT®**, see page 118 'Life Science'.



Adapter

for size 25 and 50 ml PD-Tips, PP, autoclavable. Non-sterile or sterile.

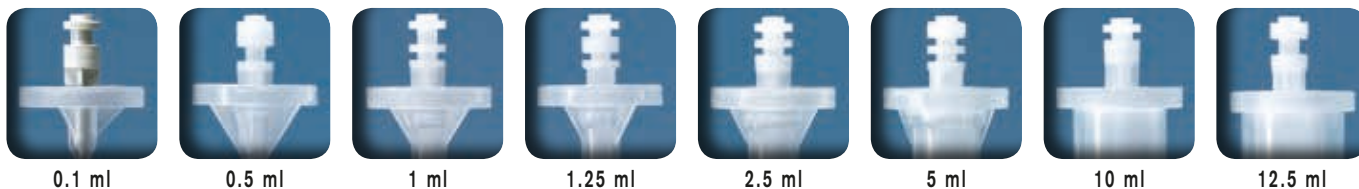
Description	Cat. No.
non-sterile	7023 98
BIO-CERT®	7023 99

Note!  PD-Tips are not autoclavable.



25 ml

50 ml



0.1 ml

0.5 ml

1 ml

1.25 ml

2.5 ml

5 ml

10 ml

12.5 ml



Pipetting aids from BRAND excel by their comfortable grips, superior control, light weight and rugged reliability:

- *accu-jet® pro*
- macro
- micro
- micro-classic

Pipetting Aids

A Closer Look...



Specifications

- Weight: 190 g
- Operating and charging temperature: +10 °C to + 35 °C
- Pipetting speed: 50 ml in less than 10 seconds
- For glass and plastic pipettes from 0.1 to 200 ml
- Approx. eight hours of continuous pipetting (with a 10 ml pipette) without recharging
- Battery pack: NiMH battery 2.4 V / 700 mAh



Use and Handling

Comfortable

Ergonomic handgrip, weight only 190 g, perfectly balanced design – for fatigue-free pipetting even in prolonged operations.

Sensitive

With the accu-jet® pro pipette controller, you have continuously variable speed control using just two buttons. In addition, you can select your preferred maximum motor speed to improve sensitivity and control with low-volume pipettes.

Powerful and quiet

At maximum motor speed, a 50 ml pipette is filled in less than 10 seconds. Now that's fast! Motor and pump operate quietly and with very low vibration. The longer you use it, the more you will appreciate it.

Power to spare

No need to worry about having enough battery power left to finish your series. A flashing LED light will alert you approx. two hours in advance.



■ **Single-handed operation**

All with one hand: select the delivery mode (gravity-delivery/blow-out) and adjust the motor speed range with your thumb; use variable button pressure for fine control of filling and delivery speed.

■ **Advanced charging**

The intelligent battery charger prevents overcharging of the NiMH battery. It effectively reduces the lazy-battery-effect (shortened operating time due to premature recharging). A flashing LED indicates when the storage battery needs charging. Charging time is 4 hours. After that, the charger automatically switches to a pulsed, long-term charging mode. The pipette controller is always ready for action, even while being charged.

■ **Tidy storage**

Keep your instrument within reach by placing it inverted on your lab bench. Or store it in the space saving wall support.

■ **Four colors**

Select from four colors to individualize your pipette controller.



Ordering Data

accu-jet® pro

Items supplied:

Each pipette controller is supplied with nickel-metal hydride battery, 2 battery compartment covers, wall support, AC adapter (100 - 240 V; 50/60 Hz) and 2 spare membrane filters 0.2 µm, sterile.

Color accu-jet® pro	dark blue Cat. No.	magenta Cat. No.	green Cat. No.	royal blue Cat. No.
with AC adapter for				
Europe (continental)	263 00	263 01	263 02	263 03
UK/Ireland	263 10	263 11	263 12	263 13
USA	263 30	263 31	263 32	263 33
Australia	263 20	263 21	263 22	263 23
Japan	263 40	263 41	263 42	263 43
without AC adapter	263 04	-	-	-



Spare Parts

(Other spare parts and accessories can be found in the operating manual.)

Description	Cat. No.
Membrane filter 0,2 µm (PP, PTFE), sterile	265 30
Pipette adapter with non-return valve	265 08
Nickel-metal hydride battery pack	266 30

macro Pipette Controller

New Design - optimized handling **NEW!**

Convenient operation without effort

The unique valve system allows for easy compression of the newly designed bellows. 50 ml of fluid can be drawn in within just 11 seconds. The spring loaded lever enables an even more sensitive filling and delivery of liquids. The meniscus is easily adjustable.



Broad area of applications

One single macro pipette controller covers the entire range of bulb and graduated pipettes from 0.1 to 200 ml. The conical silicone adapter offers a secure fit for the different diameters. The unit is fully autoclavable at 121 °C (2 bar) according to DIN EN 285. A hydrophobic membrane filter protects the system from liquid penetration.

Ergonomic design

The optimized design, the practical arrangement of functions, and the low weight of 125 g offer reliable operation during serial pipetting tasks, even for inexperienced users.

Ordering Data



BLAUBRAND® Pipetting Package

Items supplied:

- 1 macro pipette controller, gray
- 6 BLAUBRAND® graduated pipettes, type 2
3 pipettes 5 ml and 10 ml each, class AS, DE-M marking, with batch certificate
- Useful product information
BLAUBRAND® volumetric instruments, handling of pipettes
- Handy plastic container
Ideal for storage of pipettes up to 360 mm length

Cat. No. 260 07



macro Pipette Controller

Items supplied:

Each pipette controller is supplied with a 3 µm spare membrane filter.

Color	Cat. No.
gray	262 00
green	262 01
blue	262 02
magenta	262 03

Spare parts for macro Pipette Controller

Description	Pack of	Cat. No.
Membrane filter 3 µm (PP, PTFE), non-sterile	1	260 52
Membrane filter 3 µm (PP, PTFE), non-sterile	10	260 56
Adapter (silicone), length 44 mm	1	261 46
Adapter support (PP), gray, length 49 mm	1	262 20
Valve system (PP, PTFE, silicone)	1	261 28
Suction bellows (silicone) with screw ring (PP)	1	262 25

Bulb and graduated pipettes can be found on pages 174-182.

micro Pipette Controller

The micro pipette controller is an indispensable accessory for sampling with disposable micropipettes with ring mark and many small volume pipettes up to 1 ml (e.g., blood diluting and blood sugar pipettes) with aspiration end-Ø max. 5 mm.

The micro reduces the hazards of infection and is autoclavable at 121 °C.

The integrated ejection device allows the disposal of contaminated pipettes up to 50 µl without touching them, thus helping to prevent the transmission of dangerous viruses such as hepatitis B or HIV.

The micro is extremely light and very convenient.

micro Pipette Controller

Pack of 1.

Cat. No. 258 00

Spare suction system

Pack of 3.

Cat. No. 258 05



A high-performance team:
micro Pipette Controller and
**BLAUBRAND® Disposable
Micropipettes**, page 251.



micro-classic Pipette Controller

Working under a microscope requires utmost concentration and therefore comfortable and reliable instruments.

The micro-classic pipette controller with its ergonomic shape and simple handling offers comfort and convenience for this strenuous job. It is a must in IVF and medical laboratories. Suitable for disposable micropipettes with ring mark and other small volume pipettes up to 1 ml (e.g., blood diluting pipettes) with aspiration end-Ø max. 5 mm. The micro-classic adapts to right- and left-handed operation. Adapter and suction tube are autoclavable at 121 °C.

The micro-classic minimizes the risk of contamination when working with infectious material.

micro-classic Pipette Controller

Each pipette controller is supplied with 2 spare suction tubes. Pack of 1.

Cat. No. 259 00

Spare adapter with suction tube

Pack of 3.

Cat. No. 259 31



Pipette fillers

Simple pipetting aids made of natural rubber for one-mark and graduated pipettes. Control of the functions by squeezing the appropriate valves between thumb and forefinger.



Pipette filler

Standard model, for pipettes up to 10 ml.

Pipette filler with 3 valves.

Valve A: Release air

Valve S: Filling

Valve E: Delivery

Pack of 1.

Cat. No.

253 00



Pipette filler

Universal model, for pipettes up to 100 ml.

Pipette filler with 3 valves.

Valve A: Release air

Valve S: Filling

Valve E: Delivery

Pack of 1.

Cat. No.

253 15



Pipette filler

Flip model, for pipettes up to 100 ml.

Pipette filler with 2 valves.

Release air through an automatic valve.

Valve ↑: Filling

Valve ↓: Delivery

Pack of 1.

Cat. No.

254 00

The QuikSip™ bottle-top aspirator from BRAND is designed for safe and fast aspiration of common laboratory liquids used in biology, food chemistry and medicine.

- Safe removal of supernatants (up to max. 25 ml per plunger stroke), e.g., biological solutions, nutrient media, polar solvents, aqueous solutions
- Ideal for use with the new BRAND *plates*® Insert System
- Works without vacuum pump.
- Fingertip vacuum control using the cell-culture™-unit.
- Works as single channel or 8-channel aspirator (manifold optional).
- For use with disposable pipette tips, micropipettes and glass pasteur pipettes.
- Adapter and suction tube of the cell-culture™-unit are autoclavable at 121 °C (2 bar), acc. DIN EN 285. Dispensing cartridge and pump unit are not autoclavable.



QuikSip™ BT-Aspirator



Ordering Data

QuikSip™ BT-Aspirator

Items supplied:

1 QuikSip™ BT-Aspirator,
1 cell-culture™-unit incl. suction tube and
3 adapters, spare dispensing cartridge
and 2 PP adapters (GL 45/32 and
GL 45/S 40).

Cat. No.	4723 150
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Spare parts Quik-Sip™

Description	Cat. No.
Seals for QuikSip™ (Pack of 5)	6788
Filling tube (PP) with filling valve (PP/EPDM)	7045 75
Discharge valve (PP/EPDM) with seal (EPDM)	7045 80

Spare parts cell-culture™

Pack of 1.

Spare parts	Cat. No.
Adapter (SI, PVC) for glass Pasteur pipettes	259 60
Adapter (PVC) for capillaries, micro pipettes	259 33
Adapter (PP) for pipette tips	259 61
Suction tube (SI), 2 m	259 62



cell-culture™-unit

Single channel device. Complete
with suction tube and 3 adapters.

Cat. No.	259 50
----------	--------

BRANDplates® Insert System,
please see page 159.

Accessories and Spare Parts



Adapter

PP. Pack of 1.

Outer-thread	for bottle thread	Cat. No.
GL 32	GL 25	7043 25
GL 32	GL 28	7043 28
GL 45	S* 40	7043 43
GL 32	GL 45	7043 45
GL 45	GL 32	7043 96
GL 45	GL 38	7043 97

* buttress rim



8-channel manifold

PP. Autoclavable (121 °C).
Pack of 1.

Cat. No.	7045 26
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Dispensing cartridge

Piston (PE), cylinder (PP).
Pack of 3.

Cat. No.	7045 04
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Cap

PP. Cap for valve block.
Autoclavable (121 °C).
Pack of 1.

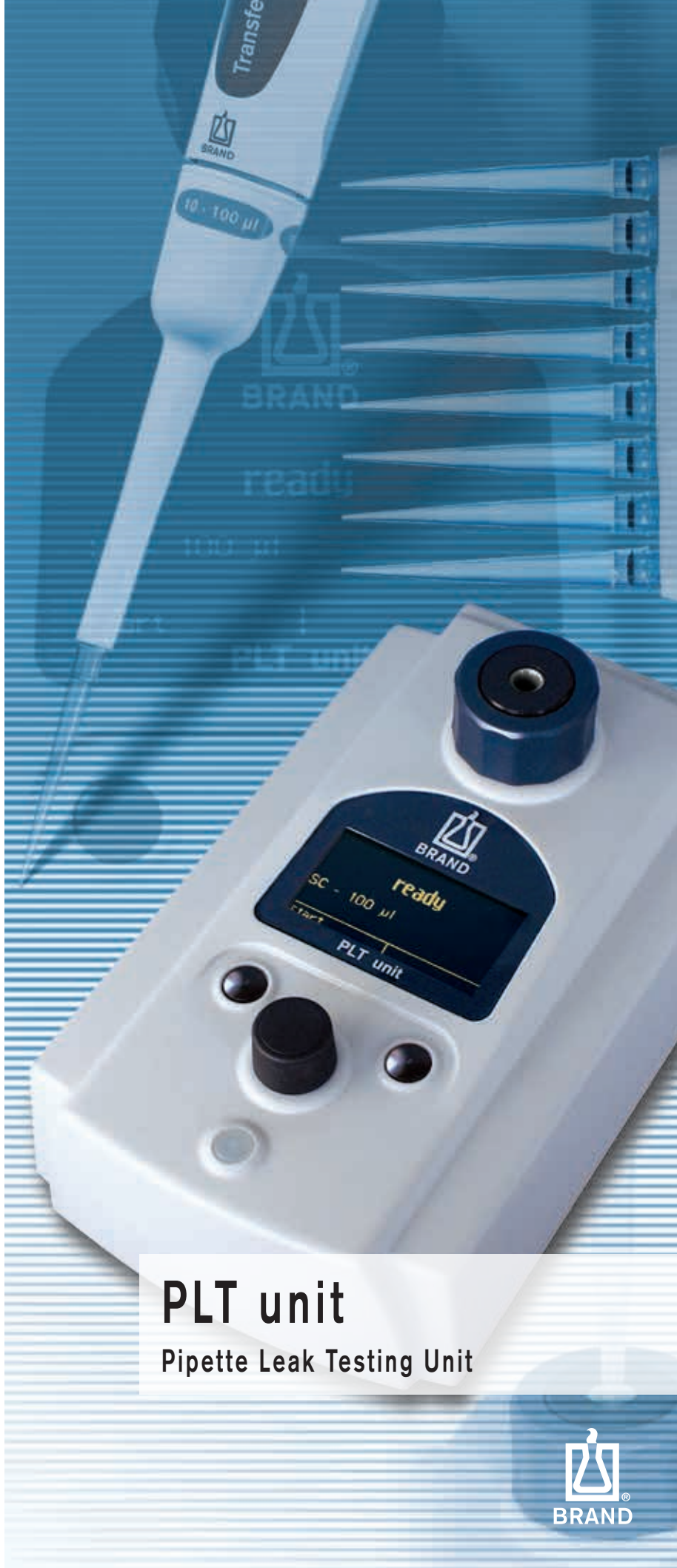
Cat. No.	7045 54
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Membrane filter

Membrane filter, 0.2 µm.
Pack of 10 in PE-bag,
non-sterile, autoclavable
(121 °C). Pack of 1.

Cat. No.	265 35
----------	--------



The most frequent cause of inaccuracy in air displacement pipettes is leakage. This arises from damage either to the seals, pistons, or tip cones. Often not detectable by the naked eye, leaks lead to significant volume errors. The BRAND pipette leak tester (PLT unit) for air displacement pipettes finds even the smallest leaks within seconds.

PLT unit

Pipette Leak Testing Unit



A Closer Look...

According to monitoring of measuring instruments, air-displacement pipettes must be checked at regular intervals and the results must be compared with the ISO 8655-2 error limits.

However, a calibration certificate only reflects the results at the time of testing. The time between these calibrations is crucial, since leaks can occur at any time.

Well over 80% of pipettes sent in for repair have leaks and are outside their volume tolerances, even if they don't drip.

While the PLT unit cannot replace regular gravimetric testing, daily pipette checks can provide a safeguard during the periods between calibrations. Even the smallest leaks are detected! Process reliability for the pipettes is thus significantly improved.

Leak rates and their detection

The leak rate is a measure of the quantity of material that flows through a leak per time unit. For air-displacement pipettes the PLT unit determines the rate through a differential pressure measurement, i.e., after creating a negative pressure, the pressure rise over a given time is measured.

■ Complex determinations

The leak rate is determined by considering complex physical relationships. Calculation of the limit values resident in the PLT must include factors such as the dead volume of the pipette/tip system, flow cross-section of the pipette tip, pressure rise per time unit, pipette volume and type, etc.

■ The pV value

The pV value is the product of the pressure and the volume of a certain quantity of a gas at the prevailing temperature. This is a measure of the quantity of material or the mass of the gas.

■ The leak rate Q_L

The leak rate Q_L is the ratio of the pV value and the period of time during which the gas flows through a path cross-section.

■ The volume loss

For the pipette test, hPa ml/s is a suitable unit for the leak rate. A leak rate of e.g., 1 hPa ml/s at an air pressure of 1000 hPa means a volume loss of about 1 μ l/s.



Single-channel adapter for pipettes with tip



Single-channel adapter for pipettes without tip



PE filter in single- and multichannel adapters



Multichannel adapter for pipettes with and without tip



Back of the instrument with AC adapter socket and USB port

Use and Handling

Testing with and without tip

To check the overall pipette system, the test is conducted with a mounted, unused tip. When a leak has been identified, the test can be repeated without a tip to determine whether the leak arises from the tip cone/tip coupling region.



Dynamic or static test?

The **dynamic test** can rapidly determine whether a defective piston (contamination, scratches, etc.) has caused a leak. The pipette button must be pushed down numerous times during the measurement period. The associated piston movement allows a defective piston to be recognized. In the **static test**, the pipette button is not pressed during the test procedure, i.e. the piston doesn't move. This will only determine a leak in a general way, without attributing it to a particular component.

Features

- Limit values for the commercially available single- and multichannel pipettes in the volume range 1 µl to 10 ml are pre-programmed.
- Testing with and without tips
- Test results in seconds
- Patent pending

Main Menu

A wide variety of submenus can be selected from the main menu, e.g., pipette type, volume range, self-test, and settings (language, shut-off time, pressure units, etc.)



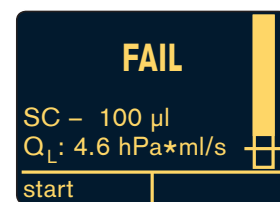
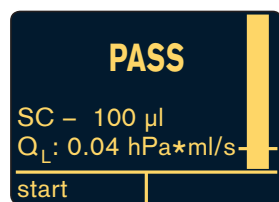
Limit values

The limit values referenced during testing represent a warning limit, from which significantly lower volume values can also be determined gravimetrically. This is one quarter of the volume tolerances, according to ISO 8655-2.

The limit value for the leak volume of a given pipette allows the leak rate to be calculated. These calculations, which are based on over 35 years of experience in the development and production of pipettes, include the dead volume and the intake characteristics, among other things.

If the pipette is mechanically defect-free, clean, and the test is carried out properly with the BRAND PLT unit, then the instrument is within the ISO 8655-2 tolerances. The marks in the vertical progress bars in the display represent the resident limit values for the leak rate Q_L .

With the correlation table in the PLT operating manual, the missing volume can be approximately determined from the leak rate. The level of the progress bar in the display indicates whether the pipette is leak-tight, and whether it lies within the tolerance limits or leaks.



Ordering Data



PLT unit (Pipette Leak Testing Unit)

Including one 1-channel pipette adapter* each for testing of single-channel air-displacement pipettes with tip (mounted) and without tip, 2 plugs, 3 replacement PE filters for the pipette adapters, universal AC adapter, quality certificate and operating manual. Pack of 1.

Cat. No. **7039 70**

* 4-channel pipette adapter optional



Accessories



1-channel pipette adapter

for testing of single-channel air-displacement pipettes with tip mounted, including 1 plug. Pack of 1.

Cat. No. **7039 75**



for testing of single-channel air-displacement pipettes without tip, including 1 plug. Pack of 1.

Cat. No. **7039 76**



4-channel pipette adapter

for testing of multichannel air-displacement pipettes with and without tips, including 4 plugs. Pack of 1.

Cat. No. **7039 77**



Filters

PE, for pipette adapter. Pack of 10.

Cat. No. **7039 78**



Universal AC adapter

Input: AC 100 V - 240 V, 50/60 Hz
Output: DC 6,5 V, 800 mA
Pack of 1.

Cat. No. **7039 79**



Titrette®

15.684

50 ml class A precision

EASYCAL 4.0

Calibration

Liquid Handling

Database: C:\Programme\EASYCAL\EASYCAL Prof\easycal.ca4

test records

carried out within this month

Preferences

EASYCAL

EASYCAL™ 4.0

Calibration Software

BRAND calibration software is compatible with nearly all liquid handling instruments and glass or plastic volumetric instruments. Now you can calibrate and track measuring instruments to GLP and ISO 9001 standards without calculators or scratch paper. EASYCAL™ 4.0 software from BRAND performs all accuracy and precision calculations, matches them to standards and generates a report.

Transferpette® S 200



250

A Closer Look...

- For testing of liquid handling instruments and volumetric instruments of glass and plastic, according to ISO 8655, ISO 4787 etc.
- Open software, suitable for all volumetric instruments, irrespective of the manufacturer.

- Continual control of the actual results during testing by means of a traffic-light indicator.
- Reminder function for outstanding calibrations.
- Recording of primary data in accordance with GLP.

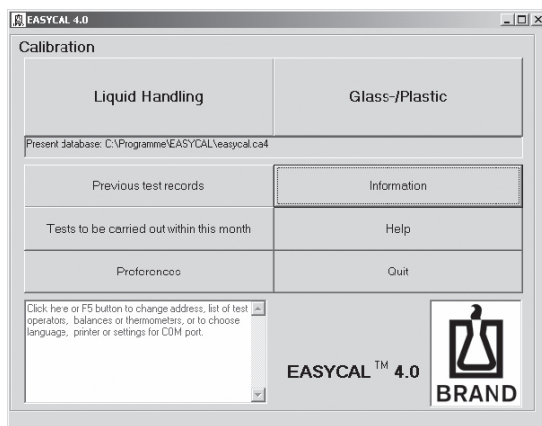
- Reliable transmission, calculation and saving of measurement data.



EASYCAL™ 4.0 carries out all calculations automatically and compares them with the error limits specified in current standards or your individual preset limit values. The error limits of many instruments, and the settings of over 100 balances, are already preset in the software.

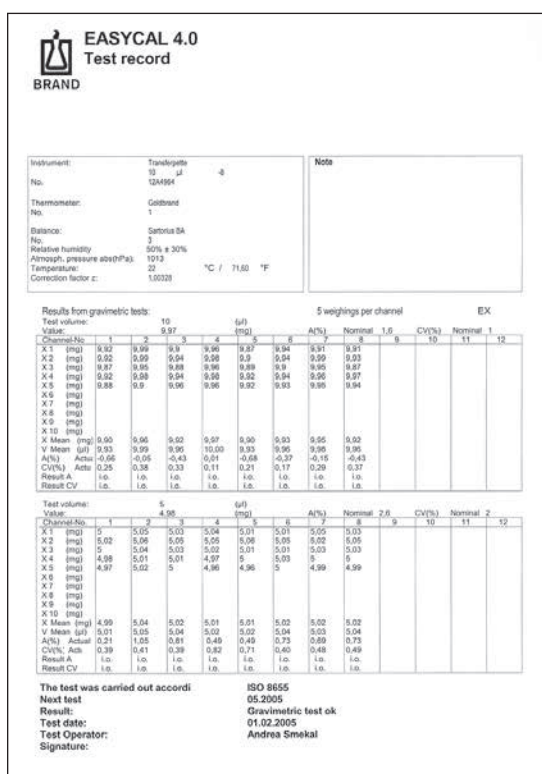
In the case of multichannel pipettes, the result of each individual channel is compared with the error limits.

After entering the weighing values (primary data), all calculations are carried out automatically. Automatic import of the weighing values is only available in the professional version.



Start screen:

This determines whether a liquid handling or volumetric measuring device of glass/plastic is to be tested.



You can print out a clear and conclusive report to GLP standards. The test results are also stored in an easily sorted database. The test certificate can be saved in various formats (e.g., MICROSOFT® Word or Excel).

Quit calibration early?

After entering three weighing values (either manually or via data transmission from the balance), EASYCAL™ 4.0 executes a background comparison of the results with the error limits. A traffic-light indicator (green/red) displays whether your results exceed the error limits.

EASYCAL™ also helps you with testing times and intervals. You will be automatically reminded which tests are due.

Test volume (µl)	Value (mg)	4.98	1.00
x 1	9.97	4.98	1.051
x 2	9.964	4.987	1.054
x 3	9.962	4.982	1.0545
x 4	9.962	4.982	1.0578
x 5	9.962	4.964	1.0581
x R			

In the event of unsuccessful testing, the test equipment can be designated as a 'defective device'. You can cancel this selection after successful cleaning or repair.

Ordering Data**EASYCAL™ 4.0****Items supplied:**

CD-ROM with EASYCAL™ software in 5 languages (German/English/French/Spanish/Dutch), manual and testing instructions (SOPs) in 4 languages in PDF format for single- and multichannel pipettes, hand-held dispensers, bottle-top burettes and dispensers and volumetric measuring instruments of glass/plastic.

Version	Description	Cat. No.
Professional Version	automatic import of measurement values	7084 40
Basic Version	manual entry of measurement values	7084 45
Upgrade		on request
Network license		on request

**Demo version EASYCAL™ 4.0**

A demo version of our software is available for download from www.brand.de. With this, you can test EASYCAL™ for 4 weeks before deciding to purchase the full version.

System requirements:

PC with 32 MB RAM, MICROSOFT® WINDOWS® 98/NT with SP6 / ME / 2000 / XP, SVGA graphic card with 256 colors, mouse, CD-ROM drive, MICROSOFT® Paint.

For connection of the professional version of EASYCAL™ with the balance, please obtain the necessary interface cable from the balance manufacturer.

EASYCAL™ supports balances such as those from sartorius®, Kern, A&D, OHAUS®, etc. METTLER TOLEDO® balances are only partially compatible (AT and AG series).

Accessories

Protection against evaporation

Avoid time-consuming evaporation traps or an expensive dual-pan balance! Pipettes < 50 µl can be surprisingly easy to calibrate using EASYCAL™ testing tubes (available as an accessory) or using the new micro-weighing container.



EASYCAL™ test tubes

For pipettes < 50 µl.
Pack of 250.

Cat. No. 7084 62

Pipette holder (clip)

For test tubes.
Pack of 10.

Cat. No. 7086 05

Attach testing tube

1. Tare the testing tube and clip. Remove the testing tube from the balance after taring. Pipette the sample from the pipette tip into the testing tube.
2. Place filled testing tube with clip on the balance; note mass. Done!



Micro-weighing container

incl. 10 filters and
3 cover caps.

Cat. No. 7084 70

Filter pack

20 replacement filters
(capacity approx. 1000 µl).

Cat. No. 7084 71

Cover cap set

3 spare closures.

Cat. No. 7084 72

Micro-weighing container

The extremely small cap opening and internal filter provides simple protection against evaporation.

